IRDR
Integrated Research on Disaster Risk

Newsletter

Issue 6 /
July to September 2026

The latest news and announcements from the IRDR community.



Risks Without Borders, Science Without Silos

Collaborative Science for a Riskier World

Welcome to the 6th issue of the IRDR newsletter. As we review the activities of our network during the period July to September, we do so against a backdrop of extraordinary loss.

A Global Reckoning

The period from July to September 2026 has been marked by disasters that have tested communities across the globe. Record-shattering heatwaves swept across Europe and North America, catastrophic flooding struck the Beijing-Tianjin-Hebei region, and earthquakes and severe storms left deep scars from Venezuela and Colombia to Chile, while monsoon flooding and landslides devastated communities across Asia from India and Bangladesh to Afghanistan and the Philippines.

Most devastating of all was the massive ice-rock avalanche and flash flood along the Nepal-China border, which swept through the Bhotekoshi and Trishuli river corridors on 26 August. In Nepal alone, national figures from the National Disaster Risk Reduction and Management Authority put the toll at 1,355 dead and approximately 4,996 still missing, while, in a matter of minutes, entire villages, bridges, and hydropower facilities were destroyed. The disaster also claimed lives across the border in China's Tibet Autonomous Region and left hundreds of foreign trekkers and pilgrims unaccounted for.

These events are not isolated tragedies. They are the lived reality behind the statistics: disasters in the first half of 2026 alone caused more than US$112 billion in economic losses, while the number of people affected by disasters has risen by 71% compared with the previous decade even as mortality has declined. The Nepal-China border disaster—a transboundary event that required coordinated cross-border response—epitomises the complex, cascading risks that define our era.

A Statement for Our Time

It is in this context that IRDR issued a pivotal new statement in September 2026: ***"Advancing Science for Disaster Risk Reduction Towards 2030 and Beyond"***. This Statement is more than a declaration; it is a collective call to action for our entire community and a strategic compass for IRDR's work, and calls for us to accelerate the implementation of the Sendai Framework, not as a bureaucratic exercise, but as a living framework for saving lives and protecting development gains.

From Mandate to Practice

The activities of the IRDR network during the July to September 2026 period are a direct reflection of the Statement's core tenets. Five themes run through this issue.

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Editorial (cont'd)

First, the network itself is expanding. In July, IRDR welcomed five new International Centres of Excellence—anchoring Southeast Asia, the Himalayan region, Eastern Europe, East Africa, and Southern Africa. This issue reports on the official launch events of three of the five new ICoEs—IRDR ICoE on Proactive Resilience and Emergency Preparedness for Adaptive Response and Efficiency (IRDR ICoE-PREPARE), IRDR ICoE on Informatics and Disaster Resilience (IRDR ICoE-IDR), and IRDR ICoE on Interdisciplinary Research on Himalayan Risk and Resilience (IRDR ICoE-IHRR). Together, these developments mark a decisive step in enabling the full operation of IRDR Phase II.

Second, the network is delivering rapid, actionable science. When the China-Nepal border mudslide struck on 26 August, IRDR moved quickly. The Rapid Disaster Impact Report published on 29 August used satellite remote sensing to reveal that floodwaters backed up some 4.9km upstream along the Gyirong Zangbo River, while the channel widened along a 97.2km stretch downstream. IRDR ICoE-IHRR and IRDR Young Scientists in Nepal mobilised a rapid scientific investigation within hours, identifying a high-elevation ice-rock soil mass failure as the likely trigger and highlighting critical gaps in rainfall-dependent warning systems. This is what the Statement means by actionable evidence: science delivered in time to inform response, not after the fact.

Third, the network is convening transboundary science-policy dialogue. On 3 September, in partnership with the United Nations Office for Disaster Risk Reduction (UNDRR), IRDR convened a virtual workshop bringing together UN agencies, scientists, and policy practitioners to dissect the China-Nepal border mudslide event. Experts called for integrated early warning systems, a dedicated Himalayan Monitoring Centre, and formal cross-border data-sharing protocols—practical answers to a hazard that respects no border while our monitoring systems still do. IRDR ICoE-IHRR also participated in the IRDR Special Session at the 16th IDRiM Conference 2026. No single sector or nation can reduce risk alone; this is what collaboration looks like in practice.

Fourth, the network is cultivating the next generation of risk scientists. From 4–20 July, the 2026 joint Beijing Normal University (BNU)-IRDR Summer School brought together 43 early-career researchers from 25 countries to explore the links between governance, development, and disaster risk. As Prof. Saini Yang told participants, "disaster risk and development are inseparable." The issue also highlights the IRDR Young Scientists driving rapid research and interdisciplinary collaboration, including two IRDR ICoE-IDR colleagues awarded UK DARe Impact Fellowships.

Fifth, the network is advancing the science–policy–practice interface. On 1 September, the IRDR Climate Change and Public Health webinar connected researchers from across the IRDR network and its partners to share progress and explore new avenues for collaboration. The issue also shows this interface at work through the IRDR ICoE-IHRR launch in Nepal, which brought together government, disaster risk reduction (DRR) networks, academia, civil society, and media; through the Centre's rapid scientific response, which fed directly into on-site response and regional dialogue; and through the new Science Council of Japan (SCJ) recommendations on disaster-resilient megacities, developed with IRDR ICoE-Coherence and IRDR NC Japan and now published in English for international dissemination. It is a reminder that risk science does not stand still—and that the Statement's call for co-designed, integrated research is already taking shape across our community.

Looking Ahead

As we move towards 2030 and beyond, the path is clear. We must move from evidence to action, from siloed research to integrated collaboration, and from reacting to disasters to anticipating them. Risks do not respect borders, and our science must not respect silos.

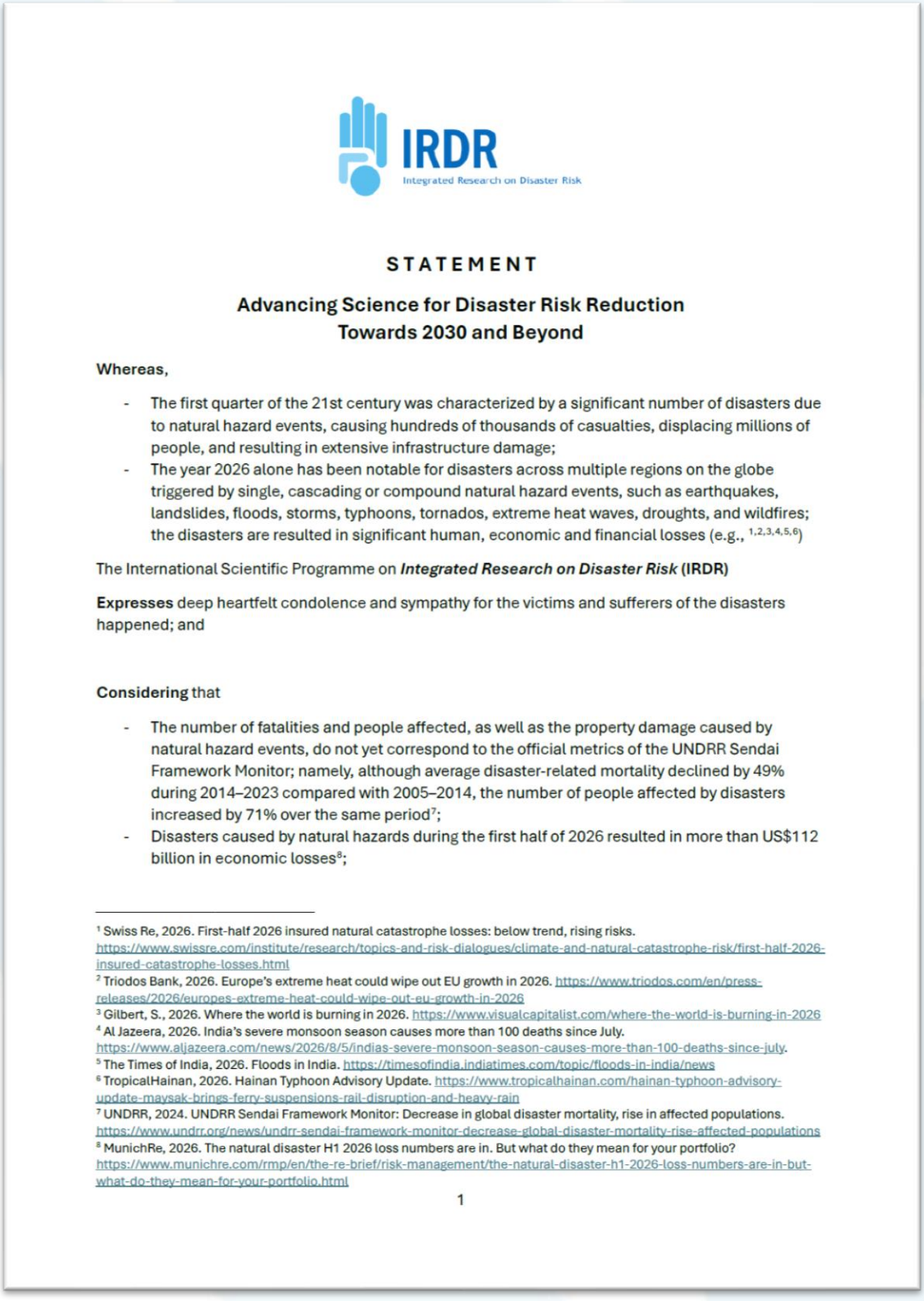
The work featured in this issue demonstrates that we are continuing to deliver on our mission to mobilise science for the reduction of all types of disaster risk—and the Statement reaffirms that mission. We invite you to read it, engage with our network, and join us in translating its calls into action.

The challenges are immense, but so is our collective capacity to meet them.

— The IRDR Editorial Team

IRDR
Integrated Research on Disaster Risk

IRDR Statement: "Advancing Science for Disaster Risk Reduction Towards 2030 and Beyond"



IRDR
Integrated Research on Disaster Risk

STATEMENT

Advancing Science for Disaster Risk Reduction Towards 2030 and Beyond

Whereas,

- The first quarter of the 21st century was characterized by a significant number of disasters due to natural hazard events, causing hundreds of thousands of casualties, displacing millions of people, and resulting in extensive infrastructure damage;
- The year 2026 alone has been notable for disasters across multiple regions on the globe triggered by single, cascading or compound natural hazard events, such as earthquakes, landslides, floods, storms, typhoons, tornados, extreme heat waves, droughts, and wildfires; the disasters are resulted in significant human, economic and financial losses (e.g., [1,2,3,4,5,6])

The International Scientific Programme on ***Integrated Research on Disaster Risk*** **(IRDR)**

Expresses deep heartfelt condolence and sympathy for the victims and sufferers of the disasters happened; and

Considering that

- The number of fatalities and people affected, as well as the property damage caused by natural hazard events, do not yet correspond to the official metrics of the UNDRR Sendai Framework Monitor; namely, although average disaster-related mortality declined by 49% during 2014–2023 compared with 2005–2014, the number of people affected by disasters increased by 71% over the same period[7];
- Disasters caused by natural hazards during the first half of 2026 resulted in more than US$112 billion in economic losses[8];

[1] Swiss Re, 2026. First-half 2026 insured natural catastrophe losses: below trend, rising risks. https://www.swissre.com/institute/research/topics-and-risk-dialogues/climate-and-natural-catastrophe-risk/first-half-2026-insured-catastrophe-losses.html
[2] Triodos Bank, 2026. Europe's extreme heat could wipe out EU growth in 2026. https://www.triodos.com/en/press-releases/2026/europes-extreme-heat-could-wipe-out-eu-growth-in-2026
[3] Gilbert, S., 2026. Where the world is burning in 2026. https://www.visualcapitalist.com/where-the-world-is-burning-in-2026
[4] Al Jazeera, 2026. India's severe monsoon season causes more than 100 deaths since July. https://www.aljazeera.com/news/2026/8/5/indias-severe-monsoon-season-causes-more-than-100-deaths-since-july.
[5] The Times of India, 2026. Floods in India. https://timesofindia.indiatimes.com/topic/floods-in-india/news
[6] TropicalHainan, 2026. Hainan Typhoon Advisory Update. https://www.tropicalhainan.com/hainan-typhoon-advisory-update-maysak-brings-ferry-suspensions-rail-disruption-and-heavy-rain
[7] UNDRR, 2024. UNDRR Sendai Framework Monitor: Decrease in global disaster mortality, rise in affected populations. https://www.undrr.org/news/undrr-sendai-framework-monitor-decrease-global-disaster-mortality-rise-affected-populations
[8] MunichRe, 2026. The natural disaster H1 2026 loss numbers are in. But what do they mean for your portfolio? https://www.munichre.com/rmp/en/the-re-brief/risk-management/the-natural-disaster-h1-2026-loss-numbers-are-in-but-what-do-they-mean-for-your-portfolio.html

1

Download the IRDR Statement on **"Advancing Science for Disaster Risk Reduction Towards 2030 and Beyond"**

Enabling the Full Operation of IRDR Phase II

IRDR Welcomes Five New International Centres of Excellence



In July, the International Programme Office (IPO) announced five new International Centres of Excellence (ICoEs) following its 2026 call for expressions of interest and a rigorous three-stage evaluation process. The new ICoEs expand the IRDR network across diverse geographies and themes, strengthening its capacity to mobilise science for disaster risk reduction, resilience, and sustainable development. Each anchors a distinct region or frontier.

IRDR warmly welcomes these five new ICoEs and is confident that their combined expertise and regional diversity will deliver meaningful, long-lasting contributions to the IRDR network and the wider DRR community.

The Five New ICoEs

1. **Southeast Asia — IRDR ICoE for Disaster Risk Reduction and Resilience Research (IRDR ICoE-D4R)**

Hosted by Indonesia's National Research and Innovation Agency (BRIN), this ICoe anchors Southeast Asia and ASEAN, with long-term stability through the Lembaga Pengelola Dana Pendidikan (Indonesia Endowment Fund for Education - LPDP), tropical archipelago multi-hazard expertise, and collaborations with Japan, Singapore, and the United Kingdom.

2. **Himalayan Region — IRDR ICoE on Interdisciplinary Research on Himalayan Risk and Resilience (IRDR ICoE-IHRR)**

Hosted by Nepal's Institute of Himalayan Risk Reduction, this ICoE brings expertise in citizen science and community-based DRR, operational early warning systems for drought and heat-cold waves, and a commitment to collaborate with Nepal's existing IRDR ICoE-NSET to avoid duplication.

3. **Eastern Europe — IRDR ICoE on Proactive Resilience and Emergency Preparedness for Adaptive Response and Efficiency (IRDR ICoE-PREPARE)**

Led by the Technical University of Civil Engineering of Bucharest with 14 partners, this ICoE anchors Eastern Europe with a €16.86 million five-year grant, multi-hazard expertise spanning earthquakes, floods, chemical, biological, radioactive and nuclear (CBRN) hazards, and forest fires, and partnerships with the World Bank and the Japan International Cooperation Agency (JICA).

4. **East Africa — IRDR ICoE on Disaster Risk Science Innovation and Resilience (IRDR ICoE-CDRSIR)**

Jointly hosted by Makerere and Gulu Universities in Uganda, this ICoE brings a public health focus, addressing the intersection of epidemics, forced displacement, and health systems resilience in East Africa, with support from the United States of America's National Institutes of Health and the Wellcome Trust.

5. **Southern Africa — IRDR ICoE in Southern Africa Centre for Integrated Disaster Risk Research (IRDR ICoE-SAC-IDRR)**

A tripartite consortium of Zimbabwe's National University of Science and Technology, and South Africa's Human Sciences Research Council, and the University of the Free State - Disaster Management Training and Education Centre for Africa (UFS-DiMTEC), this ICoE anchors Southern Africa with complementary expertise across natural sciences, social sciences, health, and engineering, and partnerships with the World Food Programme.

IRDR ICoE
Integrated Research on Disaster Risk
International Centre of Excellence

Enabling the Full Operation of IRDR Phase II (cont'd)

IRDR ICoE-PREPARE Launched in Bucharest, Anchoring Eastern Europe in the Global IRDR Network



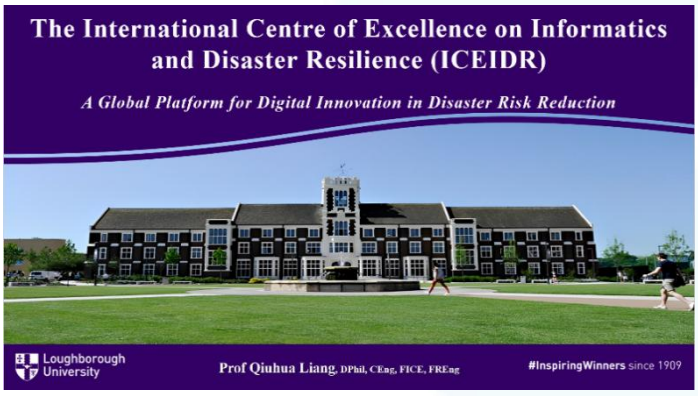
Participants at the launch event for IRDR ICoE-PREPARE. (Photo credit: IRDR ICoE-PREPARE/UTCB)

The IRDR ICoE on Proactive Resilience and Emergency Preparedness for Adaptive Response and Efficiency (IRDR ICoE-PREPARE), a consortium of 15 partner institutions hosted by the Technical University of Civil Engineering of Bucharest (UTCB), held its official launch event on 10 July. Senior representatives of all consortium partners and prominent figures from Romania's scientific community gathered to align visions and establish operational details for the initial implementation, confirming that IRDR ICoE-PREPARE builds upon an already well-established scientific community. The participants unanimously agreed that the Centre represents a coherent scientific response to society's safety needs.

The meeting presented IRDR ICoE-PREPARE's strategic directions, work-package responsibilities, methodologies, and research implementation schedule, highlighting its open, collaborative nature and the critical importance of synergies across fields of knowledge. A central message was that IRDR ICoE-PREPARE's success will be measured not only by research-project indicators but by its capacity to build a sustainable community capable of generating new collaborations, attracting European projects, and transferring research results to public administration, the business sector, and society.

Read the full launch announcement here: https://irdrinternational.org/news/940.

IRDR ICoE-IDR: A New Global Hub for Informatics and Disaster Resilience



The newly established International Centre of Excellence on Informatics and Disaster Resilience (IRDR ICoE-IDR) marked its first quarter of operation with a formal launch at Loughborough University on 16 July followed by an intensive programme of international collaboration, research exchange, and knowledge sharing.

Hosted by the School of Architecture, Building and Civil Engineering, IRDR ICoE-IDR pursued active international collaboration and knowledge exchange during the July to September period, with particular focus on strengthening UK–China geohazard research.

Enabling the Full Operation of IRDR Phase II (cont'd)

IRDR ICoE-IDR: Advancing UK and China Collaboration, Research Exchange and Knowledge-Sharing on Geohazards



Prof. Liang speaking at Lanzhou University. (Photo credit: IRDR ICoE-IDR)

Strengthening Cooperation on Geohazard Research and Training with Lanzhou University

In September, a Loughborough University delegation visited Lanzhou University to strengthen cooperation on geohazard research and training. Prof. Qiuhua Liang, Co-Director of IRDR ICoE-IDR, delivered a lecture on transforming DRR through advanced digital technologies, drawing on floods, landslides, and debris flows to show how high-performance simulation, AI and field observations can improve risk assessment and early warning.

Prof. Liang also met with Prof. Ma Xiaojie, Secretary of the Communist Party of China (CPC) Lanzhou University Committee, where they discussed geohazard research, academic exchange and joint doctoral training opportunities.



Prof. Liang presenting at the Gansu Academy of Sciences. (Photo credit: IRDR ICoE-IDR)

Research Exchange and Appointments at the Gansu Academy of Sciences

Prof. Liang and Deputy Director of IRDR ICoE-IDR, Dr. Huili Chen, gave invited research talks at the Gansu Academy of Sciences, joined by a Lanzhou University delegation led by Prof. Xingmin Meng. Prof. Liang presented on High Power Impulse Magnetron Sputtering (HiPIMS) and its applications to high-performance, multi-hazard modelling for flood forecasting and emergency management. Dr. Chen discussed how improved terrain data and the fusion of multiple data sources, including high-resolution Light Detection and Ranging (LiDAR), can strengthen flood-risk and impact assessment, with applications to glacial lake outburst floods.



Joint field visit in the Bailong River basin. (Photo credit: IRDR ICoE-IDR)

Investigating Cascading Hazards in the Bailong River Basin

From 11 to 14 September, an IRDR ICoE-IDR delegation comprising Prof. Liang, Dr. Chen and Dr. Jingxiao Wu, joined a Lanzhou University team for field visits in the Bailong River basin, examining landslide and debris-flow hazard chains and discussing field evidence, hazard modelling, monitoring and early warning. The visit also helped establish a UK–China–Nepal research team to investigate cascading hazards in the China–Nepal border region.

Enabling the Full Operation of IRDR Phase II (cont'd)



(Photo credit: IRDR ICoE-IDR)

Sharing Multi-Hazard Modelling Research at Jilin University

Prof. Liang presented at Jilin University's Geological Palace Forum on 17 September, introducing the open-source, GPU-accelerated HiPIMS modelling system and showing how coupled flood, landslide, debris-flow and sediment modelling can improve complex hazard assessment. He also discussed coupled human-natural systems research linking high-resolution hazard simulations with human behaviour models. Audience questions covered floating debris, multi-process simulation and GPU computing.

Two IRDR ICoE-IDR Scientists Awarded UK DARe Impact Fellowships



UK DARe is a national hub uniting universities and industry to build a resilient, net-zero transport system. In August, Dr. Huili Chen and Dr. Jinghua Jiang received Impact Fellowships to apply its Transport Performance and Risk Analysis Framework to partner organizations' decisions—Chen investigating road network vulnerabilities and climate-related asset failure thresholds, while Jiang exploring green infrastructure to reduce extreme-weather risks to transport systems.



IRDR ICoE-IHRR: From Institutional Launch to Rapid Science and Regional Dialogue



Formal unveiling of the IRDR ICoE-IHRR plaque.
(Photo credit: IRDR ICoE-IHRR/IHRR)

Following its designation in July, the IRDR ICoE on Interdisciplinary Research on Himalayan Risk and Resilience (IRDR ICoE-IHRR), hosted by the Institute of Himalayan Risk Reduction (IHRR) in Nepal, moved swiftly from institutional recognition to applied scientific action. Between August and September, the ICoE was formally inaugurated, mobilised a rapid scientific analysis of the 26 August Bhotekoshi flash flood, contributed to the IRDR–UNDRR webinar on transboundary DRR, and engaged in the IRDR Special Session at the 16th IDRiM Conference 2026.

Send your news and announcements for the next issue of the IRDR Newsletter to connect@irdrinternational.org

Enabling the Full Operation of IRDR Phase II (cont'd)



Participants at the launch of the newly designated IRDR ICoE-IHRR. (Photo credit: IRDR ICoE-IHRR/IHRR)



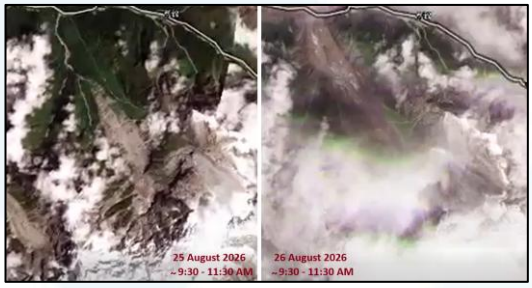
Prof. Saini Yang, IRDR's Executive Director, provided a video message. (Photo credit: IRDR ICoE-IHRR/IHRR)

Centre Launch: IRDR ICoE-IHRR Formally Inaugurated in Nepal

On 9 August, IHRR formally launched the IRDR ICoE-IHRR in Lalitpur, Nepal. The event brought together 35 participants representing Nepal's disaster risk community, including the National Disaster Risk Reduction and Management Authority (NDRRMA), Disaster Preparedness Network-Nepal (DPNet-Nepal), IRDR ICoE-NSET, IRDR Young Scientists from different cohorts, academic institutions, development organisations, researchers, practitioners, media representatives and the IHRR team.

IRDR's Executive Director, Prof. Saini Yang, provided a video message, during which she noted that IHRR will play a vital role in advancing IRDR's mission to mobilise science for DRR, resilience building, and sustainable development, especially with regards to advancing interdisciplinary research on Himalayan risk, scaling citizen science and frontier technologies, and building capacity for DRR across the region.

The launch reinforced IRDR ICoE-IHRR's commitment to bridging science, policy, and practice through its four foundational labs, while spotlighting the active role of the IRDR Young Scientists network in Nepal in driving interdisciplinary research.



Pre- and post-event satellite comparison showing the suspected ice/rock avalanche area, 25–26 August 2026.
(Image credit: Planet)



Rapid Scientific Response: Bhotekoshi Flash Flood Analysis

Following the highly destructive 26 August 2026 flash flood in the Langtang–Bhotekoshi region, IRDR Young Scientists in Nepal, working through the IRDR ICoE network and with support from scientists in China, mobilised a rapid scientific investigation within hours of the event. By analysing satellite, weather, and river-discharge data, the team identified a high-elevation ice-rock-soil mass failure as the likely trigger, emphasising the cascading nature of cryospheric hazards. The analysis highlighted critical gaps in rainfall-dependent warning systems and called for transboundary multi-hazard monitoring and source-to-downstream early warning mechanisms.

This rapid response report, titled *"Rapid Analysis Report: Scientific Anatomy of the 26 August 2026 Bhotekoshi Flash Flood"*, can be downloaded from the Knowledge Pool section of the IRDR website: https://irdrinternational.org/knowledge_pool/publications/142.

Enabling the Full Operation of IRDR Phase II (cont'd)



(Image credit: IRDR ICoE-IHRR/IHRR)

Regional Dialogue: Transboundary Disaster Risk Reduction Webinar

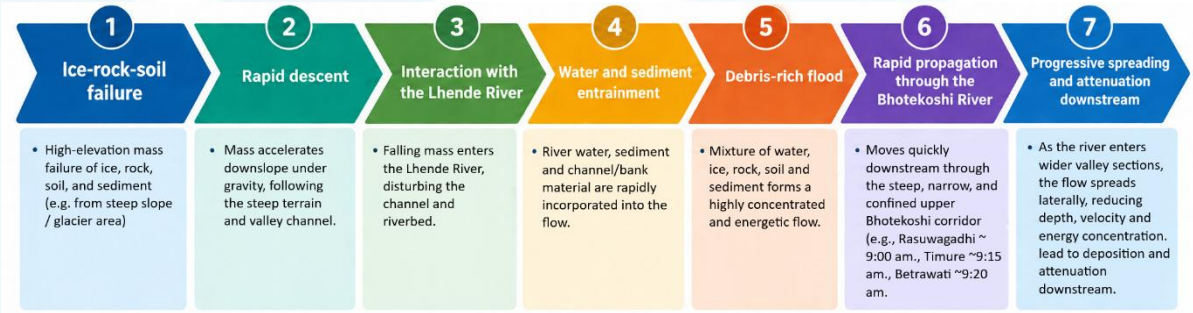
On 3 September, IRDR, in partnership with UNDRR, convened a webinar examining the transboundary implications of the China-Nepal flash flood. IHRR experts (Er. Suraj Gautam and Dr. Basanta Raj Adhikari) contributed scientific context and operational perspectives. The session underscored systemic gaps in cross-border information sharing and the science-policy interface.



Er. Suraj Gautam, Executive Director, IHRR / Director, IRDR ICoE-IHRR, delivered a scientific context briefing on the flash flood and its cascading impacts and contributed to the expert discussion on high-mountain hazard dynamics, citizen science and operational early-warning approaches.



Dr. Basanta Raj Adhikari, Technical Advisor, IHRR and a member of the 1st batch of the IRDR Young Scientist programme, contributed technical perspectives through the expert panel, linking IHRR's Himalayan risk-reduction work with the wider IRDR scientific community and highlighted the role of Young Scientists in translating research into action.



Conceptual sequence of the cascading process from high-elevation mass failure to downstream flood and debris impacts. (Image credit: IRDR ICoE-IHRR/IHRR)



IRDR ICoE-IHRR Participation in the IRDR Special Session at 16th IDRiM Conference 2026

On 21 September, IRDR ICoE-IHRR participated in the IRDR Special Session at the 16th IDRiM Conference 2026, titled "Advancing International Collaboration to Foster Integrated Research on Catastrophe Resilience in Megacities". IHRR's Executive Director highlighted the need for systemic approaches to megacity resilience, while Er. Suraj Gautam demonstrated how disaster risk cascades downstream from the Hindu Kush Himalaya through watersheds and critical infrastructure to major urban centres.

Enabling the Full Operation of IRDR Phase II (cont'd)

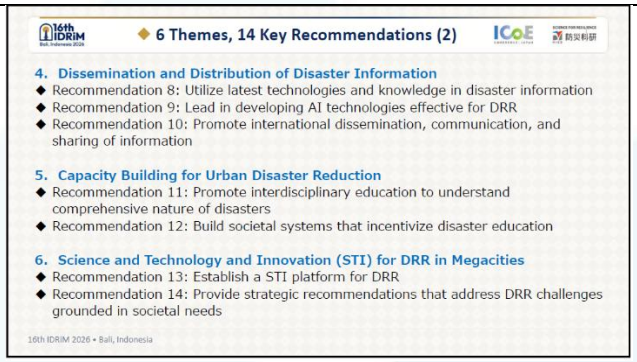
IRDR ICoE-Coherence and IRDR NC Japan Contribute to the Development of New SCJ Recommendations for Disaster-Resilient Megacities

IRDR ICoE for Coherence among Disaster Risk Reduction, Climate Change Adaptation, and Sustainable Development (IRDR ICoE-Coherence), hosted by the National Research Institute for Earth Science and Disaster Resilience (NIED), Japan, and IRDR NC Japan, a subcommittee of the Science Council of Japan (SCJ), have been actively contributing to the development and international dissemination of a new set of recommendations on strengthening disaster resilience in megacities.

The English version of the Recommendation, titled *"Science, Technology, and Innovation to Strengthen Disaster Resilience in Megacities Facing Catastrophic Disaster Risks"*, has also been published by the SCJ, making it more widely accessible to the international community. The Recommendation addresses the complex and interconnected risks faced by megacities, where populations, assets, infrastructures, economic activities, and diverse social vulnerabilities are highly concentrated.

Six Themes, 14 Key Recommendations





1. *DRR Measures for Disaster-Resilient Cities*

1) **Recommendation 1:** Implement land-use management based on disaster risk.
2) **Recommendation 2:** Account for uncertainties associated with future changes and disaster risks.

2. *Public Health in Megacities during Disasters*

3) **Recommendation 3:** Minimise health impacts.
4) **Recommendation 4:** Prevent indirect disaster-related deaths.
5) **Recommendation 5:** Maintain health, medical and welfare systems.

4. *Dissemination and Distribution of Disaster Information*

8) **Recommendation 8:** Utilise the latest technologies and knowledge in disaster information.
9) **Recommendation 9:** Lead the development of AI technologies that are effective for DRR.
10) **Recommendation 10:** Promote the international dissemination, communication, and sharing of disaster information.

5. *Capacity Building for Urban Disaster Reduction*

11) **Recommendation 11:** Promote interdisciplinary education to foster a comprehensive understanding of disasters.

Enabling the Full Operation of IRDR Phase II

Six Themes, 14 Key Recommendations (cont'd)

3. *Loss and Damage Assessment*

6) **Recommendation 6:** Promote the standardisation of disaster risk assessment.
7) **Recommendation 7:** Encourage DRR investment.

12) **Recommendation 12:** Build societal systems that incentivise disaster education.

6. *Science, Technology, and Innovation (STI) for DRR in Megacities*

13) **Recommendation 13:** Establish an STI platform for DRR.
14) **Recommendation 14:** Provide strategic recommendations that address DRR challenges based on societal needs.

IRDR ICoE-Coherence is also working to promote the Recommendation internationally. Through the IRDR network and cooperation with partners in the Asia-Pacific region and beyond, IRDR ICoE-Coherence and IRDR NC Japan will continue to promote international dialogue and collaboration on the role of science, technology, and innovation in strengthening the resilience of megacities.

IRDR Brings Community-Centred Wildfire Resilience to IUGG CCEC 2026 Symposium in Budapest



Prof. Stella Tsani, Director of IRDR ICoE-RE&SRT, introduces IRDR. (Photo credit: IUGG Hungarian National Committee)

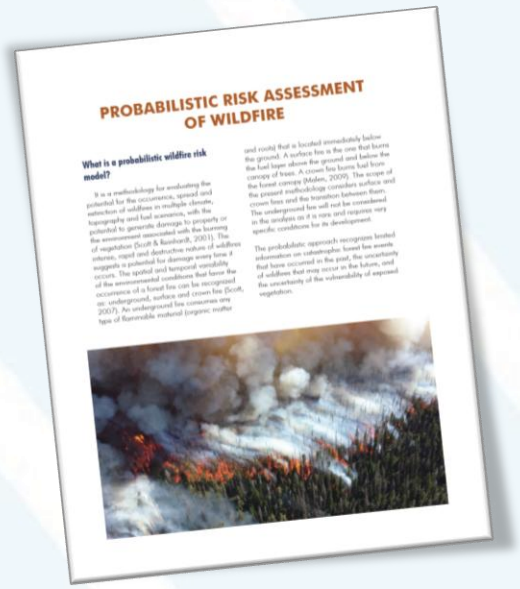
On 18 September, the Hungarian Academy of Sciences (MTA) and the IUGG Commission on Climate and Environmental Change (CCEC) convened scientists from across Europe and beyond for a one-day symposium, *"European and Global Wildfires: The Earth Science Perspective from Causes to Impacts"*, held at the MTA Headquarters in Budapest, Hungary.

Prof. Stella Tsani, Director of the IRDR International Centre of Excellence on Resilience Economics and Sustainable Risk Transitions (IRDR ICoE-RE&SRT), hosted by the National and Kapodistrian University of Athens, represented IRDR at the event, where she introduced IRDR's mission to mobilise science for the reduction of all types of disaster risk to an audience of earth and climate scientists, forecasters and policy specialists, as well as highlighting the breadth of wildfire-related work underway across the IRDR network.

Introducing IRDR

Dr. Tsani joined the symposium's opening alongside representatives of CCEC, International Association of Meteorology and Atmospheric Sciences (IAMAS), International Union of Forest Research Organizations (IUFRO), and European Geosciences Union (EGU), introducing IRDR's mission to mobilise science for the reduction of all types of disaster risk. The presentation set out IRDR's structure as a global science community and its framework for risk-informed, sustainable development built on integrating risk science with climate adaptation and the Sustainable Development Goals (SDGs).

Enabling the Full Operation of IRDR Phase II (cont'd)


PROBABILISTIC RISK ASSESSMENT OF WILDFIRE

What is a probabilistic wildfire risk model?

IRDR Network's Wildfire-Related Research

Prof. Tsani also highlighted the breadth of wildfire-related work under way across the IRDR network, spanning from DroughtPro, a probabilistic wildfire risk model developed by INGENIAR Risk Intelligence with the Universidad Nacional de Colombia's Institute of Environmental Studies, in partnership with the IRDR ICoE on Understanding Risk & Safety in Colombia (IRDR ICoE-UR&S).

At the other end of the network's portfolio is the IRDR ICoE on Proactive Resilience and Emergency Preparedness for Adaptive Response and Efficiency (IRDR ICoE-PREPARE) at the Technical University of Civil Engineering of Bucharest, Romania, which launched a dedicated Work Package on forest fires. This combines UAV and remote-sensing detection, hazard mapping and ecological restoration research with a forthcoming information-service platform for proactive fire management, running through 2030.

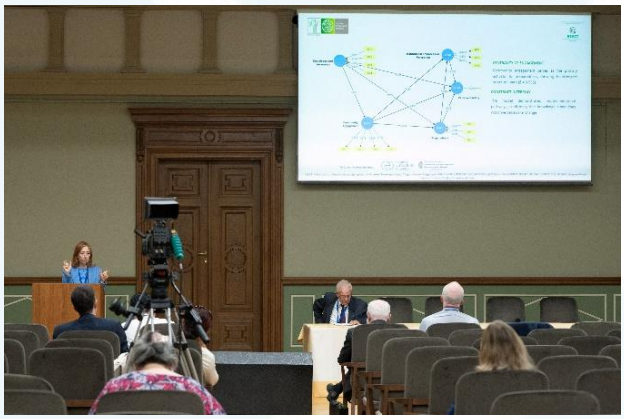


Photo credit: IUGG Hungarian National Committee

Knowledge Without Engagement? Lessons from Skiathos

In the symposium's closing session, "Engagement and Response", Dr. Tsani gave a presentation titled "Knowledge Without Engagement? Community Preparedness and Wildfire Resilience-Empirical evidence from the island of Skiathos, Greece", based on IRDR ICoE RE&SRT's ongoing Resilience, Education and Action for Climate Transformation (REACT) project. The REACT project focuses on three pillars—strategic risk communication, emergency preparedness education, and active youth engagement—and works directly with island communities on strategic risk communication, emergency-preparedness education and youth engagement. Dr. Tsani's message to the gathering was that technical knowledge of fire risk changes little without genuine community engagement behind it.

Together, these contributions, from community engagement on a Greek island to probabilistic risk modelling in Colombia and technology-driven monitoring in Romania, illustrate the range of disciplines IRDR brings to bear on a single, escalating hazard, and reaffirm the programme's role as a bridge between risk science, policy and the communities living with wildfire risk.

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Enabling the Full Operation of IRDR Phase II (cont'd)

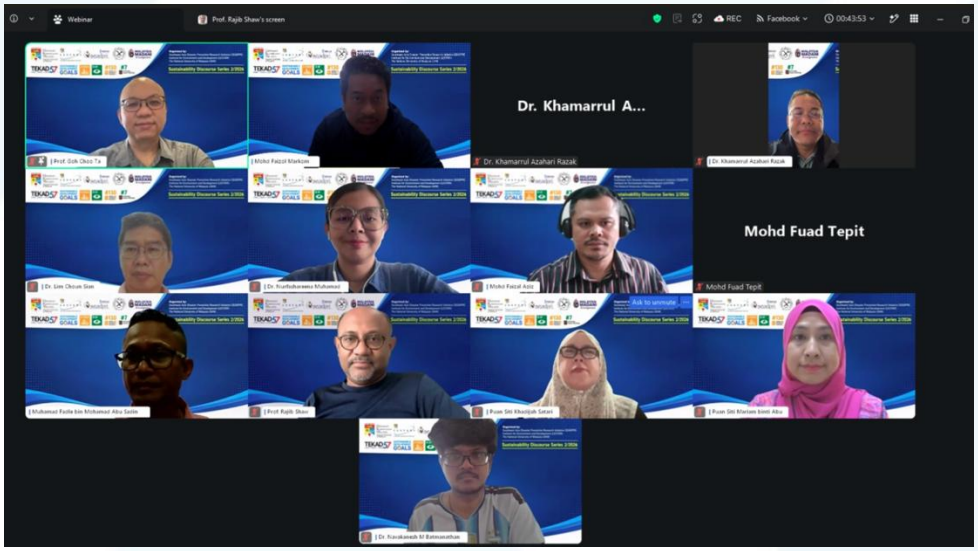
IRDR-ICoE-SEADPRI UKM Webinar: Beyond the Sendai Framework



On 29 September, IRDR-ICoE-SEADPRI UKM hosted a webinar titled *"Beyond the Sendai Framework for Disaster Risk Reduction: Towards Sustainable Development"*, featuring Prof. Rajib Shaw of Keio University (Chair, UN AP-STAG and IRDR Fellow), with expert commentary from Ms. Siti Mariam Abu of the National Disaster Management Agency (NADMA) and Dr. Khamarrul Azahari Razak, Universiti Teknologi Malaysia (UTM) and IRDR Scientific Committee member.

Prof. Shaw reviewed the achievements and limitations of the Sendai Framework, highlighting the rise of complex, systemic risks—from misinformation and digital inequality to cascading disruptions—that challenge existing disaster. Prof. Shaw reviewed the achievements and limitations of the Sendai Framework, highlighting the rise of complex, systemic risks—from misinformation and digital inequality to cascading disruptions—that challenge existing disaster governance. He called for adaptive risk management, stronger integration of DRR and climate change adaptation, and a shift from "Build Back Better" towards "Build Forward Better", where recovery drives long-term transformation. Emphasising that solutions should be co-created with communities rather than developed for them, he advocated affordable technologies, citizen science, science-based entrepreneurship, and greater participation of young professionals.

Discussions reinforced the need for systemic risk assessment, risk-informed investment, early warning systems and stronger local governance. Key recommendations included localising global frameworks, advancing digital inclusion, integrating DRR, CCA and sustainable development, and adopting compassion-based approaches that strengthen local knowledge and community capacity.



Screenshot of the meeting attendees (Image credit: IRDR ICoE- SEADPRI UKM

Key Outcomes and Recommendations

- Any global framework needs local implementation, supported by stronger local governance, localisation and community participation.
- The risk landscape is dynamic, evolving and complex, requiring adaptive governance, integration of systemic and cascading risks, and national prioritisation of major hazards.

Enabling the Full Operation of IRDR Phase II (cont'd)

- Digital inclusion is a critical future challenge, requiring affordable and accessible technologies, citizen science and inclusive innovation.
- Focus on climate-resilient development in an era of "living with uncertainties" through risk-informed planning and investment, reducing the creation of new disaster risks.
- Develop skills to co-design, co-produce and co-deliver solutions, strengthening the science-policy interface and collaboration with local communities.
- Innovation is essential in a changing world, alongside an entrepreneurship mindset among young professionals, governments and industry.
- Synergy of development, disaster and climate regimes is needed, integrating DRR, CCA and sustainable development through policies, governance and institutional collaboration.
- Compassion-based risk reduction, strengthening local knowledge, mutual assistance and community capacities, with a shift from Build Back Better towards Build Forward Better for transformative and inclusive resilience.

The forum contributed to IRDR's continuing agenda of connecting disaster risk science with policy, practice and sustainable development beyond 2030.

IRDR ICoE-Taipei: Building Capacity and Convening Science Across Asia

IRDR ICoE-Taipei delivered three major activities during the July–September period, inclusive of two Advanced Institutes, to advance research and capacity building across air pollution, health, and geohazard science in the Asia-Pacific region.

As the Centre's mission emphasises capacity building for Southeast Asia and the Global South, these Advanced Institutes provide younger and early-career scientists with training and seed grants to initiate regional DRR research projects.



Advanced Institute on Health Investigation and Air Sensing for Asian Pollution

Bali, Indonesia | 20–24 July 2026

The Advanced Institute on Health Investigation and Air Sensing for Asian Pollution (AI on Hi-ASAP) brought together 22 participants from Vietnam, Thailand, Indonesia, the Philippines, Bangladesh, Mongolia, Myanmar, and Malaysia for five days of learning and exchange on air pollution and health research. Organised by ICoE-Taipei with local host Bandung Institute of Technology, the programme addressed major health and climate challenges associated with air pollution and aerosols, emphasising low-cost sensor technologies as tools to strengthen research capacity, improve data quality, and support evidence-based action.

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Enabling the Full Operation of IRDR Phase II (cont'd)



Asia Oceania Geosciences Society (AOGS) Annual Meeting Fukuoka, Japan | 2–7 August 2026

Fukuoka, Japan | 2-7 August 2026

At the AOGS Annual Meeting, ICoE-Taipei convened two scientific sessions, sponsored speakers and poster presenters, and hosted an exhibition booth. The first session, *"Identification, Mapping, Monitoring and Forecasting of Landslide and Erosion Processes"*, was convened by Prof. Ying-Hsin Wu, with four sponsored speakers presenting research on satellite-based slope-instability assessment, weather extremes and landslides, participatory early warning, and AI-based landslide forecasting. The second session, *"Air Pollution and Health Under Climate Change: From Exposure to Intervention"*, was chaired by Prof. Mohd Talib Bin Latif, with five speakers addressing topics from PFAS in particulate matter to indoor-outdoor asthma risks. Three poster presenters contributed research on low-cost sensor applications for PM2.5 monitoring and personal exposure in Indonesia, Mongolia, and Myanmar.



Advanced Institute on Transboundary Transport of Cloud Systems and Acid Deposition

New Delhi, India | 7-11 September 2026

The Advanced Institute on Transboundary Transport of Cloud Systems and Acid Deposition addressed long-range pollutant transport as a critical environmental and disaster-risk challenge across the Indo-Pacific. Organised by ICoE-Taipei in partnership with Jawaharlal Nehru University, the programme brought together 17 participants from Vietnam, Thailand, Nepal, the Philippines, Bangladesh, and India.

IRDR NC Australia Report: First Nations Women in Fire a Vital Opportunity to Boost the Workforce and Increase Community Safety



(Photo credit: New South Wales Department of Climate Change, Energy, the Environment and Water)

A groundbreaking new report from Natural Hazards Research Australia (NHRA)—IRDR's National Committee in Australia—has revealed that supporting First Nations women in fire and land management is a critical, yet untapped, strategy for protecting Australian communities from escalating climate disasters.

The report, *First Nations women, cultural fire knowledge, wellbeing and memory*, draws attention to Australia's workforce of First Nations women in fire and land management and highlights the profound positive impacts that culturally responsive professional development programmes can have on this cohort.

Enabling the Full Operation of IRDR Phase II (cont'd)



Produced as part of the First Nations women, cultural fire knowledge, wellbeing and memory project, led by the National Indigenous Disaster Resilience (NIDR) research programme, and funded by NHRA, the report evaluated Australia's first Women-in-Fire Prescribed Fire Training Exchange (AUSWTREX), hosted by the Queensland Fire Department and Queensland Parks and Wildlife Service in northern Queensland in 2025.

Over 12 days, 30 First Nations women gathered to enhance their fire practitioner skills and share cultural and western burning knowledge. Researchers used interviews, participant journals and participant observation to evaluate the programme, specifically examining how First Nations women-led spaces and cultural knowledge exchanges impact wellbeing and memory.

The evaluation found that the AUSWTREX programme was highly valuable, providing a safe and supportive space for First Nations women—who are often the only woman or First Nations person in their workplaces—to build confidence, step into leadership roles and exchange critical fire skills.

Ultimately, the research provides a practical framework for the wider emergency management sector, demonstrating that investing in targeted, culturally supportive programmes directly strengthens workforce capability and wellbeing. By connecting Indigenous and local knowledge with science and practice, and by translating evidence into actionable guidance for government agencies, the work reflects IRDR's core commitment to reducing disaster risk through inclusive, risk-informed and sustainable development—offering a clear pathway towards a more resilient frontline workforce as Australia faces increasingly complex climate challenges.

For more information: https://naturalhazards.com.au/news-and-events/news-and-views/first-nations-women-fire-vital-opportunity-boost-workforce-and.

IRDR NC Australia Funds New Study on Firefighter Heat Stress



(Photo credit: Image by Matthias Fischer from Pixabay)

Firefighting is not as simple as riding up in a truck and pointing a hose at the flames—it takes an enormous physical toll on firefighters' bodies, especially the impacts of heat.

Researchers at the University of Canberra (UC) are seeking to ease heat stress suffered by firefighters in a new study funded by Natural Hazards Research Australia, IRDR's National Committee in Australia. The three-year study on managing first responders' heat stress risk officially began in late July.

The research will consider current heat mitigation policies for firefighters, physical responses to heat stress among firefighters, and new strategies to reduce the potential risks associated with heat stress.

Enabling the Full Operation of IRDR Phase II (cont'd)

The project will also examine heat stress in the field, measuring:

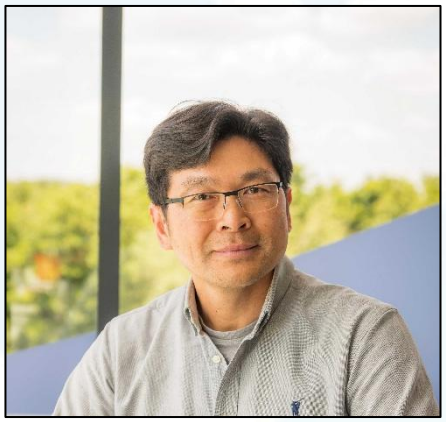
- Ambient temperature – measured in the shade;
- Globe temperature – measured in direct sunlight and can be up to 15°C higher than ambient temperature;
- Wet bulb temperature – indicates humidity; and
- Wind speed.

By examining current heat mitigation policies alongside firefighters' physiological responses and emerging strategies, the study sits squarely at IRDR's science-policy-practice interface—testing whether existing policy is fit for purpose, generating field-based evidence to inform its revision, and translating research findings into practical guidance for the agencies responsible for first responder safety.

To learn more about the project and read an interview with Prof. Julien Périard, visit the Centre's website: https://naturalhazards.com.au/news-and-events/news-and-views/research-team-warms-firefighter-heat-study.

Honours and Awards

IRDR ICoE-IDR Co-Director Prof. Qiuhua Liang, Appointed APVC and Director of Loughborough University's Flagship Institute for Digital Futures



Prof. Qiuhua Liang, Co-Director of the IRDR International Centre of Excellence on Informatics and Disaster Resilience (IRDR ICoE-IDR), has been appointed Associate Pro Vice-Chancellor and Director of the new Flagship Institute for Digital Futures at Loughborough University.

The appointment followed a competitive recruitment process and has been ratified by the University Senate.

For more information:
https://irdrinternational.org/news/909.

IRDR ICoE-RIGCC Director, Prof. Renhe Zhang, Awarded the American Meteorological Society's Sverdrup Gold Medal



Prof. Zhang Renhe, Director of the IRDR ICoE on Risk Interconnectivity and Governance on Climate Change (IRDR ICoE-RIGCC) and Academician of the Chinese Academy of Sciences, has been awarded the Sverdrup Gold Medal by the American Meteorological Society (AMS) for his fundamental contributions to understanding Asian monsoon variability, air–sea interaction over the western North Pacific, and coupled modes such as El Niño-Southern Oscillation (ENSO).

For more information:
https://irdrinternational.org/news/914.

Coordinating and Facilitating International Research Cooperation

IRDR and ADPC Sign MoU to Bridge the DR Science-DR Management-Policymaking Gap



Prof. Saini Yang, IRDR's Executive Director (left) and Mr. Aslam Perwaiz, ADPC's Executive Director after the signing of the MoU.

On 14 August, the IRDR IPO and the Asian Disaster Preparedness Centre (ADPC) formalised a new five-year Memorandum of Understanding (MoU) in a significant step toward strengthening disaster resilience in Asia and the Pacific. The MoU was signed during a visit by ADPC's Executive Director, Mr. Aslam Perwaiz, to the IPO's offices at the Headquarters of International Science and Technology Organizations (ISTO HQ) in Beijing.

The partnership aims to close the persistent gap between disaster risk science and the practical implementation of risk management and reduction policies. By aligning cutting-edge research with on-the-ground action, the collaboration seeks to transform scientific insights into tangible outcomes that protect communities and strengthen resilience across the region.

For more information: https://irdrinternational.org/news/915.

IRDR Explores Future Cooperation with ASEAN at the Strategic Policy Dialogue on Disaster Management 2026



At the 11th ASEAN Strategic Policy Dialogue on Disaster Management (SPDDM 2026), held in Singapore on 19 August, IRDR built on its long-standing technical collaboration with the ASEAN disaster management community. Prof. Yang introduced the Hazard-Dependent-Vulnerability Initiative, led by IRDR ICoE-REaL in South Africa, which resonates closely with ASEAN's push for tailored early warning and anticipatory action.

Exchanges with ASEAN officials and the ASEAN Coordinating Centre for Humanitarian Assistance on disaster management (AHA Centre) explored next-step cooperation, including harmonised risk metrics, joint capacity-building, science-policy dialogues, and co-development of vulnerability assessment tools. IRDR stands ready to leverage its global science network to co-deliver region-tailored solutions advancing ASEAN's collective disaster resilience agenda.

IRDR stands ready to leverage its global science network to co-deliver practical, region-tailored solutions that advance ASEAN's collective disaster resilience agenda.

For more information: https://irdrinternational.org/news/917.

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Coordinating and Facilitating International Research Cooperation (cont'd)

IRDR Hosts Webinar Connecting Climate Change and Public Health Research Teams



On 1 September, IRDR hosted the online workshop ***"Climate Change and Public Health: Connecting IRDR Research Teams"***, bringing together researchers from across the IRDR network and its partners to share progress, exchange knowledge, and explore collaboration within one of IRDR's key workstreams.



Dr. Ogony updated on the ICoE-REaL-affiliated pilot study on "Seroepidemiological Patterns and Community Preparedness for Climate Change-Driven Mosquito-Borne Diseases in Flood-Prone Areas of Western Kenya".

Prof. Chan outlined IRDR ICoE-CCOUC's role as a platform for research, education, and knowledge transfer, including its partnership with Hong Kong's GX Foundation across 14 countries.

Prof. Tang presented on the five-year framework on climate change and public health of the IRDR ICoE on Risk Interconnectivity and Governance on Climate Change (IRDR ICoE-RIGCC), highlighting an all-course atlas, global collaboration networks, and the AI Service Plus initiative.

Prof. Bi shared his team's 25-year research programme on climate, environmental and occupational health, and infectious disease epidemiology, including a heat and health early warning system.

Prof. Zhao introduced the Urban Big Data Centre's IDMAPS project mapping deprivation in African cities.

The discussions revealed strong potential for collaboration—particularly between IRDR ICoE-CCOUC/GX Foundation and Dr. Ogony's dengue research, and among Australian and UK institutions on heat, productivity, and data platforms—with all participants expressing keen interest in future joint projects.

Read the full article: https://irdrinternational.org/news/921.

Coordinating and Facilitating International Research Cooperation (cont'd)

IRDR IPO Visits Zhijiang Lab to Explore Collaboration on AI for DRR



IRDR's Executive Director, Prof. Saini Yang, accompanied by Ms. Fang Lian, Science Officer, visited Zhijiang Laboratory in Zhejiang Province, China, on 2 September to explore collaboration on advancing AI for DRR. Guided by open science and open data principles and grounded in AI for Science, the two sides discussed joint efforts on AI-DRR frontier theory, applied tools, and capacity building—serving global needs, especially in countries with the highest disaster risk and weakest technical resources.

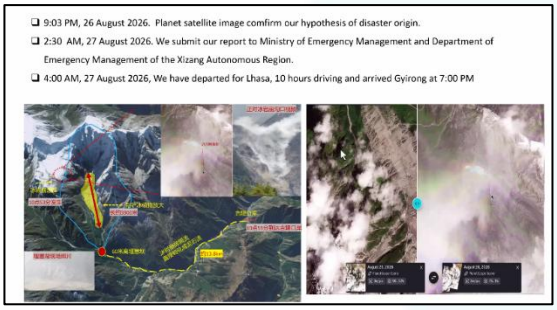
Zhijiang Laboratory, established in 2017 and jointly built by the Zhejiang Provincial Government, Zhejiang University, and Alibaba Group, is a major intelligent computing platform with a computing centre capable of training large models with trillions of parameters.

The two sides reached preliminary consensus on three potential areas of collaboration: an Open Science Computing Platform and research ecosystem support; joint R&D and model engineering; and youth empowerment and Global South capacity building, laying the groundwork for a formal cooperation framework.

For more information: https://irdrinternational.org/news/924.



On 3 September IRDR, in partnership with UNDRR, convened an urgent 90-minute webinar, which brought together a distinguished roster of experts and practitioners to analyse the event's complex dynamics and to chart a practical pathway for enhanced transboundary resilience in the Hindu Kush Himalaya.



An Unprecedented "Himalayan Tsunami"

On 26 August, a massive ice-rock avalanche in Nepal triggered what scientists describe as an unprecedented "Himalayan tsunami"—a complex, cascading hazard unlike any recorded in the region. The falling mass released energy equivalent to a magnitude 5.2 earthquake, melting ice and entraining water and debris as it descended, generating waves 50–100 metres high at velocities of 180–190 km/h that travelled over 160 kilometres downstream.

Coordinating and Facilitating International Research Cooperation (cont'd)

According to a rapid analysis report by IRDR young scientists in Nepal, the failure likely blocked the river and formed a temporary natural dam before breaching around 8:30 a.m., with the steep gradient and narrow valley accelerating and concentrating the flood while the heavy debris load increased its destructive force.

Systemic Gaps Laid Bare



A panel of senior scientists from the IRDR network and partner organisations highlighted the critical systemic weaknesses exposed by the disaster.

The problem of isolated science and policy: The panel noted that while Nepal has developed capacity for earthquakes and typical riverine floods, this event demonstrated a fundamental gap in understanding high- high-mountain cryospheric hazards. Hazards such as glacial lake outburst floods (GLOFs), ice avalanches, and permafrost degradation are studied in isolation, with a pressing need for an integrated, multi-hazard risk assessment approach.

- Weak science-policy interface: Despite clear scientific warnings about compounding risks in the Hindu Kush Himalaya—including in the IPCC's Sixth Assessment Report—the translation of this knowledge into urgent policy action and community-level preparedness remains severely lacking. The gap between "understanding risk" and "acting on risk" remains a central challenge.

- The need for a Himalayan Monitoring Centre: Experts proposed establishing a regional monitoring center bringing together China, India, Nepal, Pakistan, and Bhutan to facilitate collaborative real-time monitoring, data analysis, and risk-sensitive land-use zoning.

A Defining Moment for the Region

The webinar concluded that the 26 August flash flood was a tragic and defining moment for the Himalayan region. It has forcefully underlined the complex, cascading, and transboundary nature of modern disaster risk. The disaster is not an isolated event but a stark indicator of a changing regional risk profile, driven by global warming and climate change.

For more information on the webinar's outcomes and the complete recording: https://irdrinternational.org/news/925.

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Coordinating and Facilitating International Research Cooperation (cont'd)

IRDR Contributes to Global Discussions on Disaster-Related Statistics at the 6th Global Expert Forum



Prof. Saini Yang, IRDR's Executive Director (upper right) participates in the 6th Global Experts Forum.

IRDR's Executive Director, Prof. Saini Yang, virtually participated in the 6th Global Expert Forum for Producers and Users of Disaster-related Statistics, which was held in Geneva, Switzerland, from 3–4 September. The Forum brought together producers and users of disaster-related statistics from national institutions, international and regional organisations, academia, and other stakeholder groups, with discussions focused on advancing implementation of the Global Disaster-Related Statistics Framework (G-DRSF) and strengthening collaboration between the statistical and DRR communities.

During the session on Disaster Impact Statistics, Prof. Yang delivered a presentation titled *"From Data to Knowledge: IRDR's efforts in support of Disaster-related Statistics"*, introducing IRDR's work on strengthening disaster risk knowledge—including hazard classification, standardisation, and the application of disaster loss data in territorial planning and decision-making—and highlighting the importance of improving the consistency, accessibility, and application of disaster-related data to support risk-informed policy-making.

For more information: https://irdrinternational.org/news/926.

IRDR Special Session at IDRiM2026: Advancing International Collaboration for Megacity Resilience



Attendees of the IRDR Special Session at IDRiM2026

On 21 September, IRDR held a special session during the 16th International Conference of the Integrated Disaster Risk Management (IDRiM) 2026, under the theme *"Advancing International Collaboration to Foster Integrated Research on Catastrophe Resilience in Megacities"*. The session brought together leading researchers and institutions to address the growing disaster risk in the world's most populous urban centres.

Presentations from the British Geological Survey (BGS), Indonesia's National Research and Innovation Agency (Badan Riset dan Inovasi Nasional - BRIN)/IRDR ICoE for Disaster Risk Reduction and Resilience Research (IRDR ICoE-D4R); Japan's National Research Institute for Earth Science and Disaster Resilience (NIED); and Nepal's Institute of Himalayan Risk Reduction (IHRR) / IRDR ICoE-IHRR converged on four common themes.

1. Megacities were framed as interconnected systems of systems, with power, water, transport, telecommunications, and health systems shown to fail in cascading, nonlinear ways.

Coordinating and Facilitating International Research Cooperation (cont'd)

2. The technical frontier was presented as offering both opportunities and limits: high-resolution multi-hazard modelling, digital twins, new observation platforms, and AI/ML were identified as transformative, but with the caution that "data does not equal information," underscoring the need for shared data standards and open data governance.

3. The shift from hazard to systemic risk was framed around closing the science-policy-practice gap, including a proposal for an STI platform linking scientists, policymakers, communities, and the private sector, alongside calls to move "from hazard maps to systemic risk" and "from static assessments to dynamic intelligence," with citizens as monitoring partners.

4. Early warning was presented as needing to lead to early action, exemplified by the "Schools as Anchor" initiative for seamless earthquake, tsunami, and storm surge early warning in coastal Indonesian schools, aligned with the Sendai Framework and the UNESCAP/UNESCO/UNDP safe school roadmap.

Soft Launch of the International Platform for Risk-Informed and Megacity Resilience

A centrepiece of the session was the soft launch of an International Platform for Risk-Informed Development and Megacity Resilience, under the IRDR Work Stream on Risk-Informed Development. The platform aims to facilitate knowledge exchange, foster comparative research, connect science with policy and practice, and mobilize complementary resources.

The session concluded with an open invitation to researchers, institutes, universities, international organizations, practitioners, cities, and multi-stakeholders to contribute their expertise, initiatives, networks, and resources. As the organizers emphasised, "Together, we can advance risk-informed development and resilience in megacities and beyond."

For more information: https://irdrinternational.org/news/927.

IRDR and IFAW Meet to Explore Collaboration on DRR and One Health



On 22 September, a delegation from the IRDR IPO, led by Executive Director Prof. Saini Yang, met with representatives from the International Fund for Animal Welfare (IFAW) to explore possible areas for collaboration between both organisations.

The meeting commenced with Prof. Yang providing a comprehensive overview of IRDR's mission, highlighting its role in mobilising science for DRR and development safety, and possible synergies at the intersection of disaster risk science, animal welfare, and sustainable development.

Aligning Strategies for a Resilient Future

The core of the discussion focused on identifying potential areas of cooperation between the two organizations. The dialogue was informed by IRDR's strategic frameworks, particularly the A Framework for Global Science in Support of Risk-informed Sustainable Development and Planetary Health. Key areas of mutual interest emerged around the concept of One Health—an integrated approach that balances the health of people, animals, and ecosystems. both parties agreed to explore specific collaborative projects that leverage IRDR's scientific network and IFAW's on-the-ground expertise in animal welfare

For more information: https://irdrinternational.org/news/929.

Knowledge Production and Outreach

Five New IRDR Publications on the 26 August 2026 Bhotekoshi Flood

Following the Bhotekoshi flash flood, IRDR released five publications examining the event from complementary angles—from rapid impact assessment and satellite-based observation to scientific analysis and forward-looking risk projection.



Rapid Analysis Report: Scientific Anatomy of the 26 August 2026 Bhotekoshi Flash Flood

This rapid analysis report provides a scientific anatomy of the 26 August 2026 Bhotekoshi flash flood, unpacking its drivers, dynamics, and impacts.
https://irdrinternational.org/knowledge_pool/publications/142

Transboundary Threats from Glacial Lake Outburst Debris Flows in the Himalayas: Identification and Future Projections



This publication identifies transboundary threats posed by glacial lake outburst debris flows across the Himalayas and offers future projections to support anticipatory risk reduction in the region.

https://irdrinternational.org/knowledge_pool/publications/146

IRDR Special Report: Risk assessment of Debris Flows along the China-Nepal Transportation Corridor



This Special Report assesses debris flow risk along the China–Nepal Transportation Corridor, providing evidence to inform risk management for this critical cross-border route.

https://irdrinternational.org/knowledge_pool/publications/145

Rapid Disaster Impact Report: Satellite Remote Sensing Reveals Severe Mudslide Impacts along the China–Nepal Border



This rapid impact report uses satellite remote sensing to document severe mudslide impacts along the China–Nepal border following the 26 August 2026 event.

https://irdrinternational.org/knowledge_pool/publications/144

Satellite Data for Flash Flood Debris Flow in China and Nepal on 26 August 2026



This publication presents satellite data capturing the flash flood and debris flow across China and Nepal on 26 August 2026, supporting rapid assessment of the event.

https://irdrinternational.org/knowledge_pool/publications/143

Empowering Young DRR Professionals

43 Early-Career Researchers Complete 2026 BNU-IRDR Summer School



The 2026 Summer School on "China's Governance and Development," jointly organised by Beijing Normal University (BNU) and IRDR, took place from 4 to 20 July 2026, bringing together 43 early-career researchers and graduate students from 25 countries across Africa, Asia, Europe, and the Americas for an intensive 17-day programme.

The fully-funded school blended academic lectures, field visits, group discussions, and research presentations, covering topics from global development paradigms and DRR policy to cultural heritage governance and research methodologies.

Learning Beyond the Classroom



Students

A dedicated IRDR session at the Donghu International Center introduced participants to the global DRR landscape and the IRDR Young Scientists Programme, alongside a presentation on China's disaster risk management experience, while field visits to community governance centres, the Beijing Government Service Center, the Xiong'an New Area, and the Tongzhou Sub-Center provided hands-on exposure to China's urban planning and sustainable development models. The programme culminated in research proposal presentations before a faculty panel, with participants forming lasting professional networks.

Rooted in IRDR's Mission

In her opening keynote, IRDR Executive Director Prof. Saini Yang underscored that "disaster risk and development are inseparable"—a framing that reflects IRDR's core mission to mobilise science and build interdisciplinary capacity for a safer, more resilient world. The school stands as a concrete expression of that commitment to cultivating the next generation of disaster risk researchers and practitioners.

For more information: https://irdrinternational.org/news/912.

Youth Innovators Present Climate and Disaster Risk Solutions at 2026 Hackathon Finals in Beijing



The finals of the 2026 Youth Climate Action and Disaster Risk Reduction Hackathon were held in Beijing on 13 September, bringing together young innovators, experts, and practitioners to present youth-led solutions for climate action and disaster risk reduction. Organised by UNDRR's Regional Office for Asia and the Pacific, IRDR, Tsinghua University, the UNESCO Chair for Mountain Disaster Risk Reduction and Resilience, the UNESCO Chair in Informatics and Multi-hazard Disaster Risk Reduction, the UNESCO Chinese National Committee for Man and the Biosphere, and the UNESCO International Centre on Space

Empowering Young DRR Professionals (cont'd)

Technologies for Natural and Cultural Heritage, the finals followed a youth creative video contest and a public study and research camp held between March and August 2026, building on four previous editions of the Hackathon.

Four Tracks, Three Age Groups

Participants developed solutions along four tracks—AI-driven climate action and DRR, cultural heritage and climate resilience, community participation and grassroots climate adaptation, and green finance and DRR innovation—with 18 teams advancing to the finals, six each in the Junior (aged 12–17), University, and Enterprise (aged 18–35) groups. The finals opened with remarks by Marco Toscano-Rivalta, Head of the UNDRR Regional Office for Asia and the Pacific, and Prof. Saini Yang, IRDR Executive Director, who underscored the role of young people in advancing climate action and DRR, and an interdisciplinary panel assessed the projects.

Youth Innovation Across Climate and Disaster Risks

The Junior Group finalists addressed urban resilience, community action, flood risk, cultural heritage protection, and smart healthcare; the University Group presented projects on community climate resilience, campus climate risk, urban flood early warning, green spaces, and AI; and the Enterprise Group emphasised application and scalability, with projects on heat management, climate insurance, fire early warning and flame-retardant technologies, smart grids, and clean energy.

Awards and Next Steps

Awards were presented in each category, comprising First, Second, and Third Prizes and a Most Influential Award for public engagement, with promising projects expected to be further tested, refined, and connected with communities, universities, and industry.

IRDR will continue to support the participation of youth and young professionals in DRR and to promote youth-led innovation and collaboration.

For more information about the 2026 Youth Climate Change and Disaster Reduction Innovation Initiative: https://irdrinternational.org/news/896.