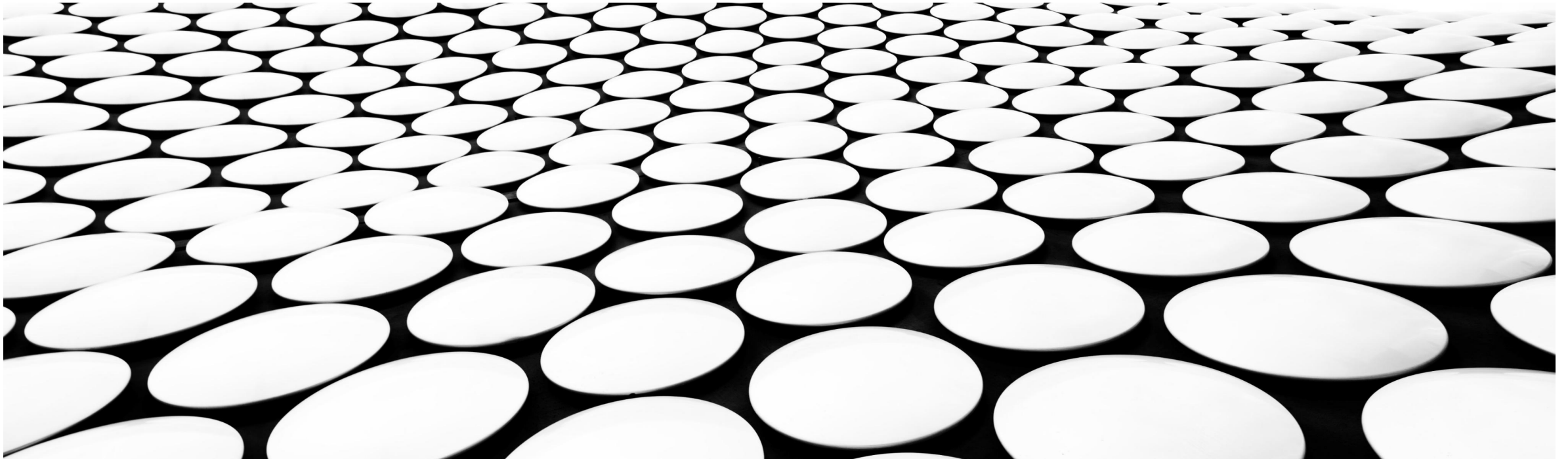




# IRDR UPDATE

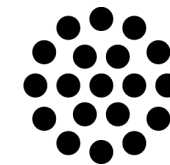
2 JULY 2024 HAN Qunli, Executive Director



# Signing Ceremony

## Integrated Research On Disaster Risk (Phase II)

11 May 2023, Paris



**International  
Science Council**



**UNDRR**

UN Office for Disaster Risk Reduction







**IRDR**

Integrated Research on Disaster Risk

# Vision, Mission and Objectives

***Toward inclusive, safe and sustainable development***



**Improve**  
knowledge and  
understanding of  
risk and  
uncertainty



**Promote**  
innovation in  
research and  
action, and  
explore effective  
solutions in DRR



**Build**  
institutional  
capacity required  
for risk-informed  
development

# Main Functions and Deliverables

Coordinating international research

Working at the science-policy-practice interface

As an international hub of centres of excellence for risk research and capacity building

**IRDR Main Deliverables will contribute to Open Science and Open Access**



IRDR Special Reports



IRDR Lectures



Service in organising DRR Science and Policy Forums



IRDR Working Paper Series

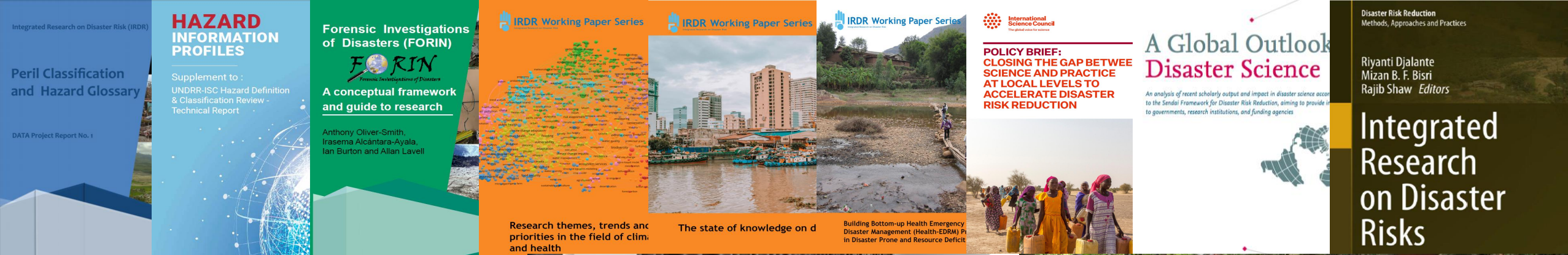


IRDR Trainings and Courses



Promotion of risk science development and best examples





The Integrated Research on Disaster Risk 2021 International Conference

# ADVANCING RISK SCIENCE FOR DEVELOPMENT SAFETY

## 10 YEARS OF IRDR

BUILDING A NEW RISK RESEARCH AGENDA FOR 2030 AND BEYOND

Main conference on 8-10 June 2021 and pre-sessions during April - May 2021

global platform for disaster risk reduction

Science and Policy Forum for the Implementation of Sendai Framework for Disaster Risk Reduction

13-14 May  
Palais des nations, Geneva

# 6th WORLD LANDSLIDE FORUM

2023 FLORENCE ITALY



# IRDR: a science community for research and actions

Coordination, oversight and institutional support by  
Co-sponsors, Donor and Host

Programme Planning and Implementation Guidance  
Scientific Committee (SC)

Programme Operation and Reporting  
International Programme Office (IPO)

National  
Committees

DRR  
Partners

Young  
Scientists  
Programme

Pilot  
Projects and  
Studies

International  
Centres of  
Excellence

Work  
Streams

# 13 National Committees , 1 Regional Committee

<b>IRDR Australia</b>	Bushfire & Natural Hazards Cooperative Research Centre (BNH CRC)	<b>IRDR New Zealand</b>	Natural Hazards Research Platform (NHRP)
<b>IRDR Canada</b>	Science and Technology Working Group, Canada's Platform for Disaster Risk Reduction	<b>IRDR USA</b>	Natural Hazards Center (NHC), Institute of Behavioral Science, University of Colorado at Boulder
<b>IRDR China</b>	China Association for Science and Technology (CAST)	<b>IRDR Iran</b>	A group of eight Iranian research institutes and scientific associations
<b>IRDR Colombia</b>	National Committee of Disaster Risk Knowledge, National Unit for Disaster Risk Management of the Presidency of the Republic of Colombia	<b>IRDR Indonesia</b>	Indonesia Institute of Sciences (LIPI)
		<b>IRDR Japan</b>	Science Council of Japan (SCJ)
<b>IRDR France</b>	Scientific Council, Association Française Pour la Prévention des Catastrophes Naturelles (AFPCN)	<b>IRDR Republic of Korea</b>	National Disaster Management Research Institute (NDMI) in Ministry of the Interior and Safety
<b>IRDR Germany</b>	German Committee for Disaster Reduction	<b>IRDR Nepal</b>	National Reconstruction Authority of Nepal

**IRDR Regional Committee**

**ISC Regional Office for Latin America and the Caribbean**

## 18 International Centres of Excellence

<b>Community-based Resilience, New Zealand</b>	<b>ICoE- CR</b>	<b>Risk Education and Learning, South Africa</b>	<b>ICoE- REaL</b>
<b>Risk Interpretation and Action, UK</b>	<b>ICoE- RIA</b>	<b>Capacity building, research, Chinese Taipei</b>	<b>ICoE- Taipei</b>
<b>Understanding Risk &amp; Safety, Colombia</b>	<b>ICoE- UR&amp;S</b>	<b>Vulnerability &amp; Resilience Metrics, USA</b>	<b>ICoE- VaRM</b>
<b>Critical Infrastructure &amp; Strategic Planning, Germany</b>	<b>ICoE- CI&amp;SP</b>	<b>Disaster Resilient Homes, Buildings, and Public Infrastructure, Canada</b>	<b>ICoE- DRHBPI</b>
<b>National Society for Earthquake Technology, Nepal</b>	<b>ICoE- NEST</b>	<b>Disaster and Medical Humanitarian Response, Hong Kong, China</b>	<b>ICoE-CCOUC</b>
<b>Disaster Risk and Climate Extremes, Malaysia</b>	<b>ICoE-SEADPRI-UKM</b>	<b>Spatial Decision Support for Integrated Disaster Risk Reduction, the Netherlands</b>	<b>ICoE-SDS IDRR</b>
<b>Transforming Development and Disaster Risk, Sweden/Thailand</b>	<b>ICoE-TDDR</b>	<b>Integrated Research on Disaster Risk Science, Australia</b>	<b>ICoE-IRDRS</b>
<b>Resilient Communities &amp; Settlements, India</b>	<b>ICoE-RCS</b>	<b>Disaster and Climatic Extremes, Pakistan</b>	<b>ICoE-DCE</b>
<b>Risk Interconnectivity and Governance on WEather/Climate Extremes Impact and Public Health , Shanghai, China</b>	<b>ICoE-RIG-WECEIPHE</b>	<b>Coherence among Disaster Risk Reduction, Climate Change Adaptation, and Sustainable Development. Tokyo, Japan</b>	<b>ICoE - Coherence</b>



# IRDR'S GROWING PARTNERSHIP



ISC GeoUnions Standing Committee on Disaster Risk Reduction



Culture Sector, Science Sector, IKCEST, HIST, MAB China, UNESCO Chair UK,...

Technologies and database, Open Science and knowledge service, MHEWS, ICH and Climate Change, UNESCO Sites, Youth,...

# Empower Youth and Young Professionals

## IRDR Young Scientists Programme

- Since 2016
- 5 batches
- 208 young researchers
- Over 40 countries
- Over 30% female researchers
- Multi-disciplinary
- Integrated research



### IRDR Youth Podium

Seismic Performance Evaluation of  
Indigenous Brick Masonry Infill Panel  
Walls in Reinforced Concrete Structures

06 February 2024

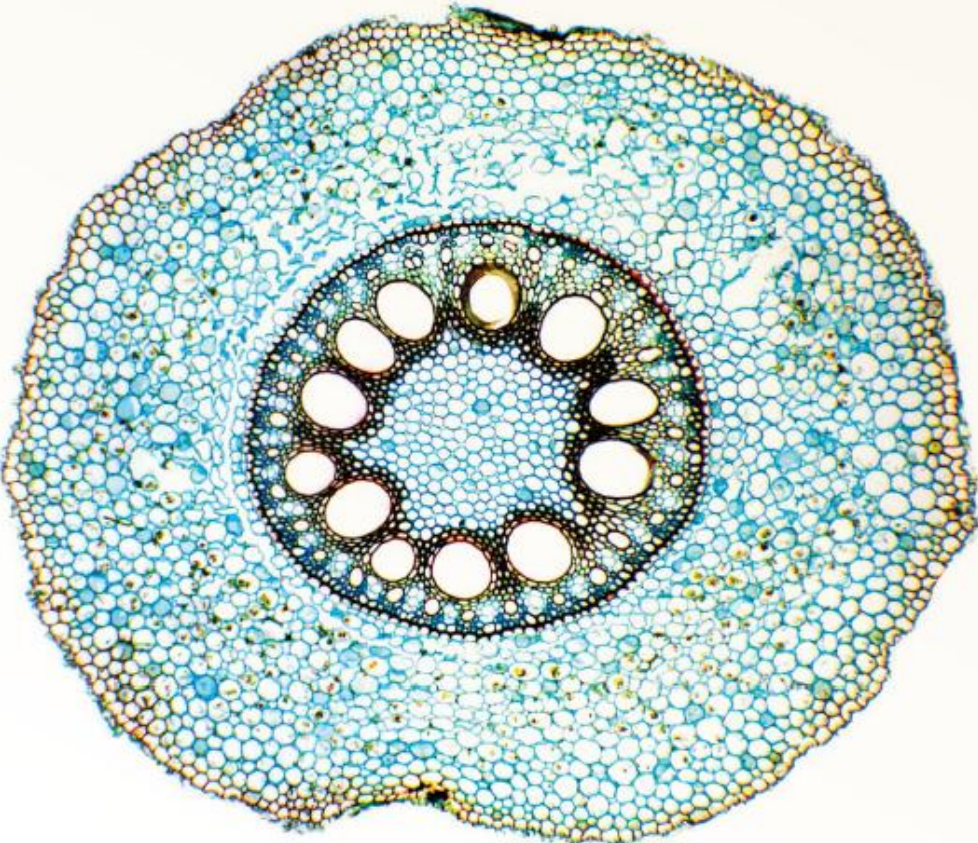
This is the first product of IRDR Youth Podium.





# SCIENCE AND SOCIETY IN TRANSITION

ISC ACTION PLAN: 2022–2024



## 1 GLOBAL SUSTAINABILITY

### Theme 1.3: Systemic risk and global emergencies

Preparedness is crucial in the face of cascading, systemic risks, involving new, complex, interacting threats that disrupt the fabric of social life and undermine attempts to achieve both global sustainability and human-centred development. These risks and potential crises demand more effective anticipatory responses from both science and SOC

Priority theme 1.3: Systemic risk and global emergencies			
Activities	ISC role and partnerships	Status	Time-frame
<u>Development and implementation of a global risk research agenda for 2030</u>	ISC role: Partner Partners: IRDR (Lead), UNDRR, The Risk Knowledge Action Network, CAST, and others to be determined	Ongoing	Ongoing



# The Development of Research Framework



**Guiding the development of the agenda and the process used**

With representatives of:

-  **International Science Council**  
The global value for science
-  **UNDRR**  
UN Office for Disaster Risk Reduction
-  **IRDR**  
Integrated Research on Disaster Risk
- Science Committee
- Executive Director
- External Members

**Providing review and commentary from diverse perspectives**

Core Group members

Representatives with expertise in:

- DRR
- climate
- sustainability
- development
- the private sector

-  **UNDRR**  
UN Office for Disaster Risk Reduction
  - Science and Technology Advisory Groups
-  **IRDR**  
Integrated Research on Disaster Risk
  - International Centres of Excellence
  - National Committees

**Ensuring inclusion of sectors and sources of knowledge often excluded**

- indigenous knowledge
- private sector
- early career science communities
- information and communication technology



# Priorities in Global Research Framework

(ISC, IRDR, UNDRR, Nov 2021)

1. Understand risk creation and perpetuation in the present risk landscape
2. Address inequalities, injustices and marginalisation
3. Enable transformative governance and action
4. Understand the implications of new thinking on hazards
5. Harness technologies, data and knowledge for risk reduction
6. Support regional and national science and knowledge for policy and action
7. Support just and equitable transitions, adaptation and risk reduction
8. Measurement to help drive progress
9. Foster interdisciplinary and multi-stakeholder collaboration



# Clusters of Actions and Deliverables

**Enabling a full operation of IRDR Phase II**

➤ **Coordination and facilitation of international research cooperation**

➤ **Knowledge production and outreach**

➤ **Empower young DRR professionals**

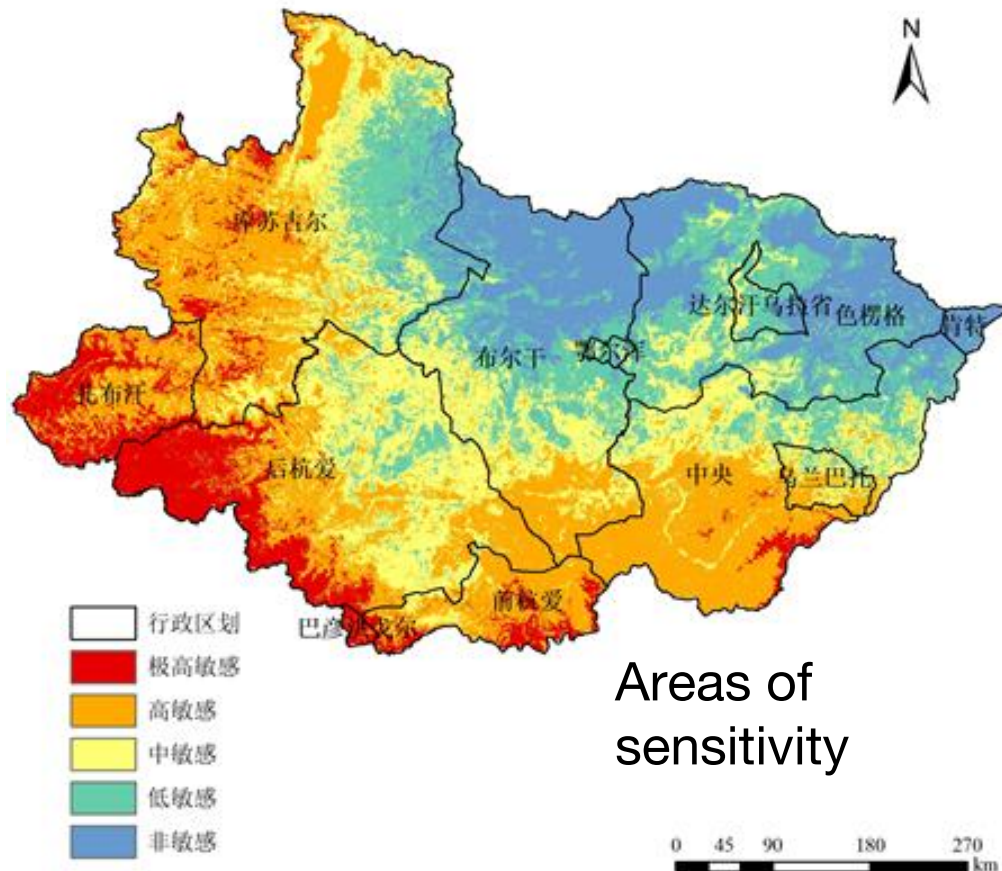


## IRDR Pilot Studies (examples)

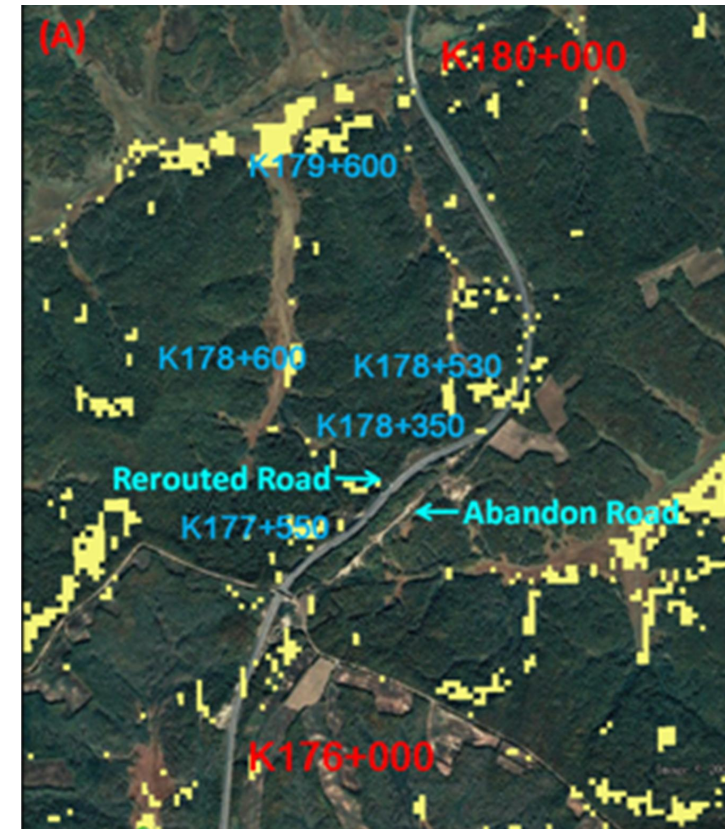
Host	Topic
UNESCO–IKCEST DRR	Ecological Safety Assessment in the Selenge River Basin on the Mongolian Plateau
Horizon Programme	Empower young professional in DRR innovation and network
IRDR ICoE Fudan	Research themes, trend and future priorities in the field of climate change and health
ICL/IPL WCoE	The impact of mountain landslides on major infrastructures in the degraded permafrost region in the northwest of the Lesser Khingan Mountains
ICRG	Towards Post–Normal Science: The Science–Policy–Society Interactions in Emergency Management Research
CODATA GOSC	Open Science Cloud for Disaster Risk Reduction
iNED	Landscape and challenges of digital industry in Disaster Risk Reduction
CBAS	SDGSAT–1 data products and service for Disaster Risk Reduction

## IRDR Pilot Studies (examples)

### Ecological Safety Assessment in the Selenge River Basin on the Mongolian Plateau



### The impact of mountain landslides on major infrastructures in the degraded permafrost region in the northwest of the Lesser Khingan Mountains



Roads affected by landslides triggered by permafrost

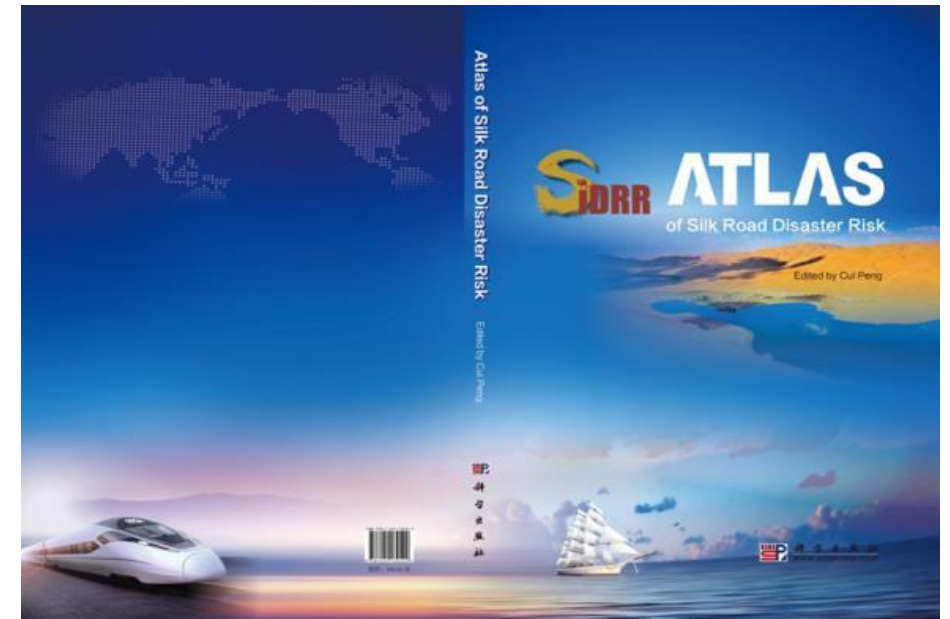
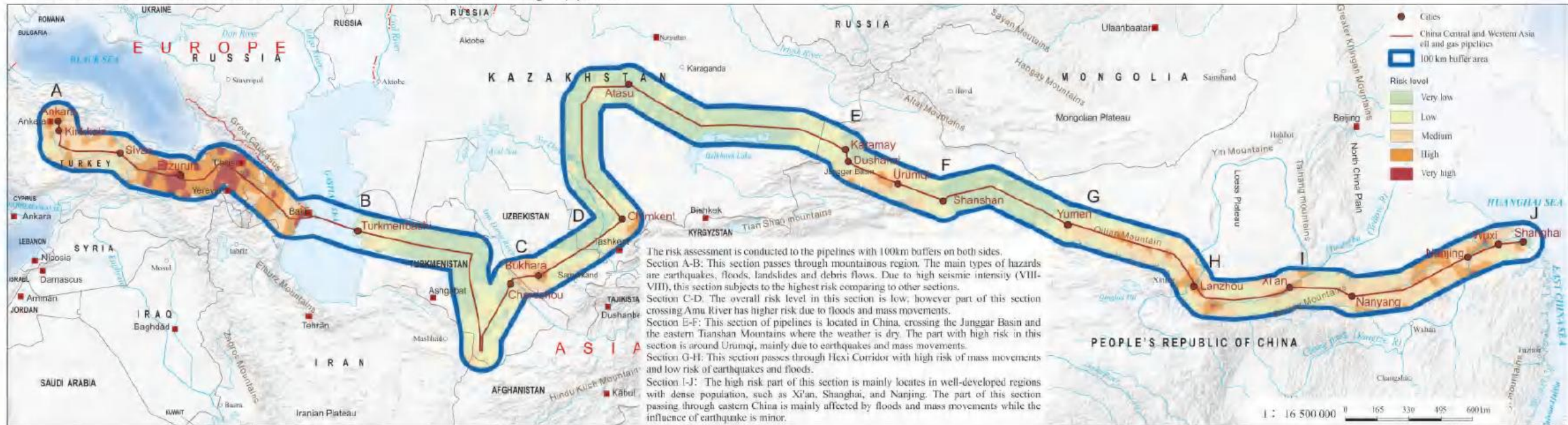


# IRDR Flagship Project Silk Road Disaster Risk Reduction (SiDRR)

- Risk information of multi-hazards and infrastructures along the silk road region
- Cases on the solutions and experiences of disaster events

## Risk assessment for infrastructure

Disaster risk assessment of China - Central and Western Asia oil and gas pipelines





# IRDR Work Streams and intended themes

## Work Streams (WS)

### Objective

- 1) Deliver under the research priorities of the Framework
- 2) Act as international think tank

### Lead and participation

- 1) Led by Principal Investigator (PI)
- 2) DRR partners and stakeholders including IRDR members jointly work as a group

### Application and approval

Research Proposal approved by SC

### Funding

- 1) Multi and collective sources
- 2) IPO can provide € 10,000–20,000 per year for each WS

### Duration

3–5 years

### Focus and orientation

Theme oriented

### Deliverables

Research papers, policy briefs, IRDR Special Reports

- Climate extremes and public health (ongoing)
- Landscape of 4D risk and climate change adaptation in Mongolian Plateau (ongoing)
- Systemic, compound and cascading risk
- New data technologies and DRR
- Build back better with resilience in the context of post Covid–19
- DRR education
- Integrated DRR in IDAs
- DRR financing

# **PREPARATION OF IRDR SC27 AND IRDR 2024 CONFERENCE**

**SC TO TAKE ROLES FOR CONFERENCE PLANNING  
TOGETHER WITH IPO**



# PRE-SESSIONS FOR IRDR 2024 CONFERENCE

Workshops/Conferences as Pre-sessions	Organizer(s)	Place
New Technology vs Disaster Risk Reduction: Opportunities and Emerging Risks	IRDR IPO CODATA GOSC	Online
Harness technologies, data and knowledge for disaster risk reduction of UNESCO-designated sites	IRDR IPO UNESCO HIST	Huangshan, China
<b>International Conference on Science and Technology for Sustainability 2023</b>	IRDR ICoE-Coherence IRDR NC Japan	Tokyo, Japan
Disaster Risk Reduction session of the 6th World Philanthropy Forum	IRDR ICoE CCOUC	HK, China
<b>New data technologies for DRR early warning and early actions</b>	IRDR IPO DBAR DRR WG CAST-UN Consultative Committee on DRR	Beijing, China
<b>1st Intl. Conference of Chemical Weather and Chemical Climate</b>	<b>WMO</b> IRDR Fudan ICoE	Shanghai, China
Open data and open service for disaster risk reduction	IRDR IPO CODATA GOSC	Salzburg, Austria

# SAVE THE DATE

	AM	PM
21 Oct		IRDR SC Meeting
22 Oct	IRDR SC Meeting	IRDR 2024 Conference: Opening Session and Plenary Session
23 Oct	IRDR 2024 Conference: Parelle Sessions	
24 Oct	IRDR 2024 Conference: Plenary Session and Closing Session	<u>Special Event</u> Thematic Session of 2024 World Science and Technology Development Forum: Science and Technology for Risk–informed Sustainable Development





# THANK YOU!

IRDR Compilation 2010–2020

IRDR Science Plan

Global Research Framework

