

IRDR Updates

Dr. Prof. Saini Yang

Executive Director



Toward inclusive, safe and sustainable development

IRDR IPO

Saini Yang Executive Director



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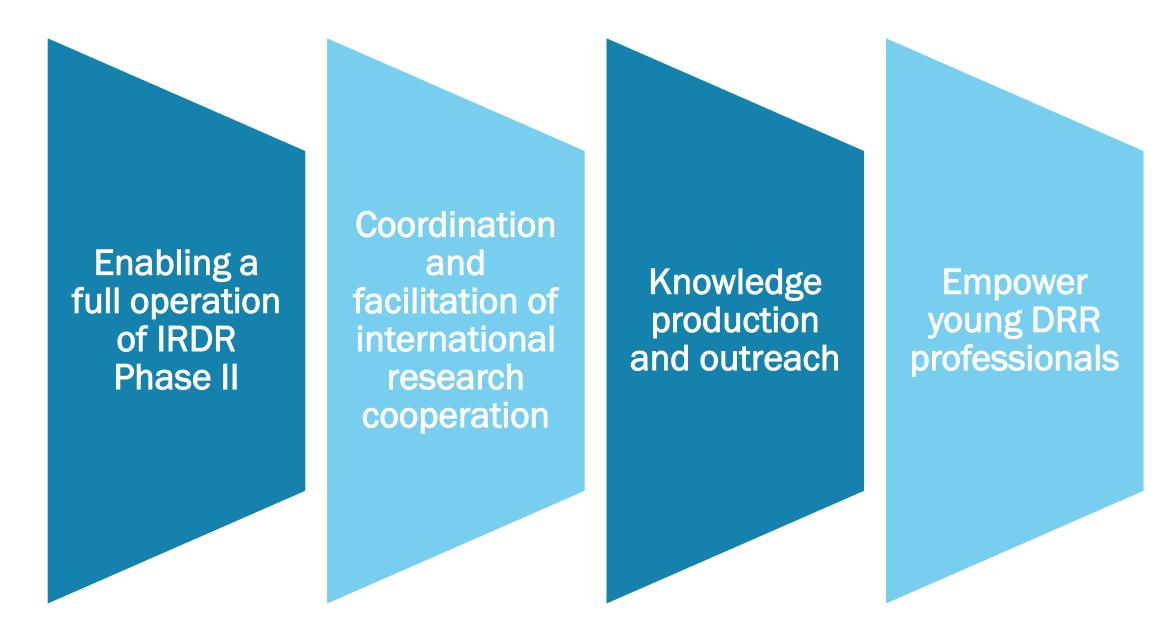
Interns







IRDR Action Plan 2025-2027



Enhancement of NCs and ICoEs

Review the status of ICoEs in Phase I

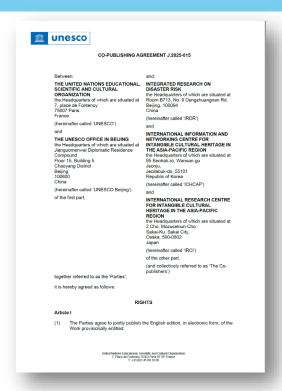
- After consultation with the IRDR cosponsors, the ISC and UNDRR, it was decided not to review NCs for the time being.
- The 14 ICoEs have passed this round of review and retain their membership in the IRDR scientific community.
- It is expected to have Letter of Agreement between IRDR IPO and host institute of IRDR ICoE been approved at SC28.

Applications for new ICoEs

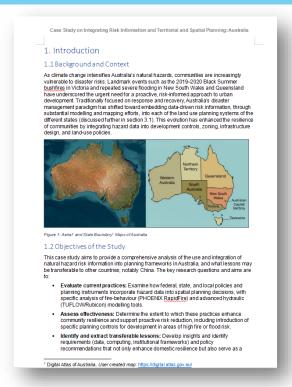
- IPO received 6 applications of new ICoEs by the end of September, mainly from UK (2), Nepal (2), China and Greece.
- It is expected to decide the evaluation process at SC 28.

New partnership development

UNESCO East Asia Office: ICH and climate resilience



World Bank: Risk-informed territorial planning



China MEM: Integrated risk assessment and zoning

自然灾害综合风险基础理论和综合风险 防控区划定规范论证报告

> 灾害风险综合研究(IRDR) 2024 年 9 月

A MoU with GADRI will be signed this year to address the collaboration on DRR education and joint research initiatives among universities and institutes.

International and regional dialogues

- COP29 Baku
- World Science Forum
- ISC Third General Assembly 2025 and Muscat Global Knowledge Dialogue
- Global Platform for Disaster Risk Reduction (GP2025)
- World Association for Disaster and Emergency Medicine (WADEM) Biennial Congress
- 7th Global Summit of GADRI: Converging Disaster Research and Stakeholder-Engagement for Resilience
- IRDR-UNESCO Forum on International Cooperation for Climate Change
- The International Symposium on Open Science Clouds 2025 (ISOSC 2025)
- 5th International Forum on Big Data for Sustainable Development Goals (FBAS 2025)
- Al Enabling International Urban Sustainable Development Implementation Seminar
- ASEAN Sustainable Urbanisation Forum (ASUF)
- The Global Sustainable Islands Summit (GSIS) 2025

Development of IRDR Work Streams and Pilot Studies

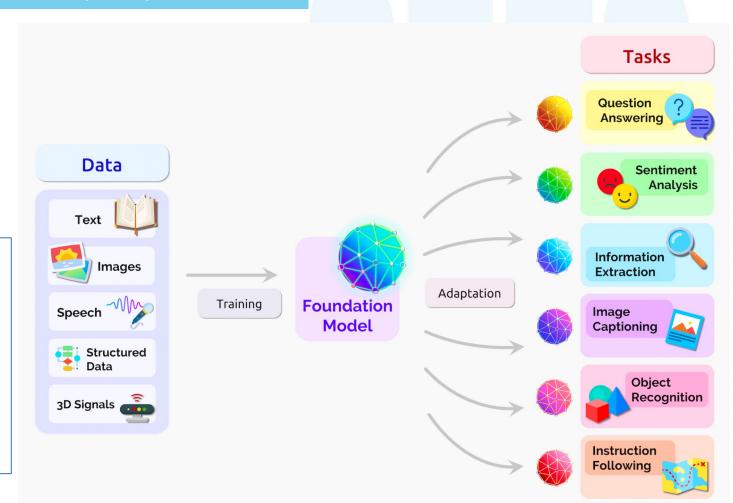
IRDR Pilot Study: Large language model (LLM) on DRR

Objectives:

- 1. Open Access Publications
- 2. Open Model
- 3. Research Toolbox
- 4. Capacity Building

Scenarios:

- disaster early warning
- emergency response
- loss assessment
- risk assessment
- capacity building for disaster risk reduction



Development of IRDR Work Streams and Pilot Studies

Propose IRDR Work Stream: Climate Change and Public Health

Identifying and assessing the health impacts of climate change •

Conduct a comprehensive review of the existing literature on the health impacts of climate change, including both direct impacts (such as heat stress, vector-borne diseases, and air pollution) and indirect impacts (such as food and water insecurity, displacement, and mental health).

Strengthening research and data collection •

Prioritize research that can help fill knowledge gaps and support evidence-based policy making. This may include studies on the effectiveness of interventions, the health impacts of specific climate change events, and the social and economic determinants of vulnerability.

Developing adaptation and mitigation strategies

Work with experts from various fields to develop strategies and policies that can help mitigate and adapt to the health impacts of climate change. This may include interventions to reduce greenhouse gas emissions, improve public health infrastructure, and promote resilience and adaptive capacity.

Building partnerships and networks

Collaborate with relevant stakeholders, including governments, civil society organizations, and the private sector, to build networks and partnerships that can support the development and implementation of effective strategies and policies.

Overall, this IRDR work stream aims to generate knowledge and evidence that can inform policymaking and contribute to the global effort to address this urgent challenge. By bringing together experts from various fields and building partnerships across sectors, the workstream seeks to develop holistic and integrated approaches that can promote human health, environmental sustainability, and planetary health.

Risk KAN

- Dr. Kai Kornhuber, Co-Chair of the Steering Committee of Risk KAN, visited IRDR IPO on 4 July 2025.
- IRDR will attend the upcoming Risk KAN SC meeting after the new members are selected and announced.



Contribution to Global Assessment Report (GAR) series and its special reports

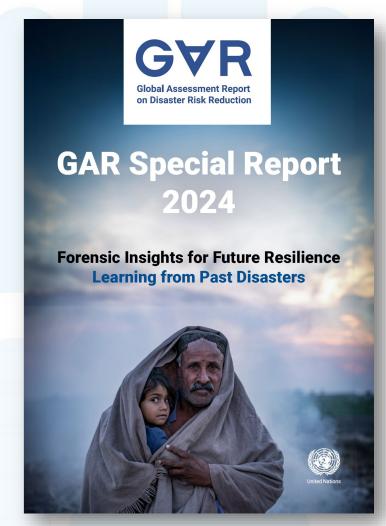
IRDR Community contributed to the GAR2025 by providing advisory and case studies. Specially:

Advisory Board:

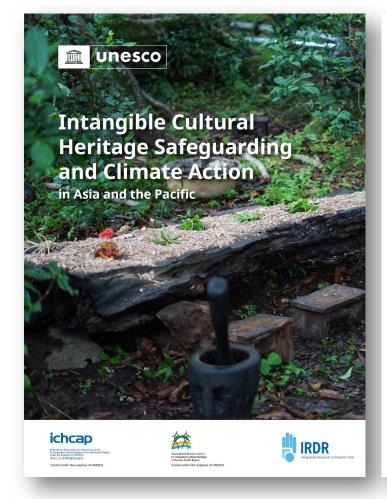
- Nesreen Alhmoud, IRDR Fellow, Former IRDR Scientific Committee
 Member
- Haruo Hayashi, IRDR Fellow, Former IRDR Scientific Committee Member
- Allan Lavell, Former IRDR Scientific Committee Member, Former Chair of IRDR Working Group on FORIN
- Shuaib Lwasa, Former Chair of IRDR Scientific Committee
- Saini Yang, IRDR Executive Director

Case Study Authors:

- Kaoru Takara, IRDR Scientific Committee Member, IRDR ICoE Coherence
- Suman Chapagain, IRDR Young Scientists, IRDR ICoE NSET



IRDR Special Reports







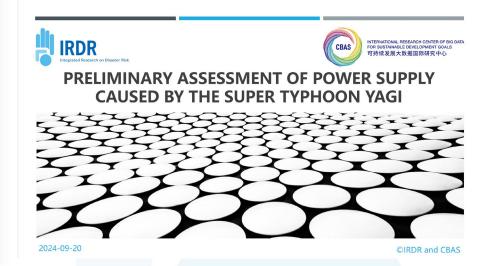


ASSESSMENT OF LIBYA FLOOD BASED ON HIGH SPATIAL NIGHTTIME LIGHT DATA FROM SDGSAT-1





ANALYSIS OF WILDFIRE IN NORTHERN PORTUGAL



IRDR Trainings

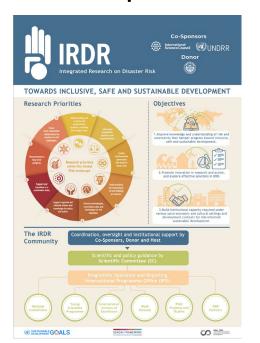
- ICoE Taipei: 2025 Advanced Institutes
- ICoE Fudan: 2025 International Summer
 School on Climate Change and Related Risks
- International Training on Resource & Environment Scientific Data Sharing and Disaster Risk Reduction Knowledge Service along the Belt and Road (organized by UNESCO IKCEST)





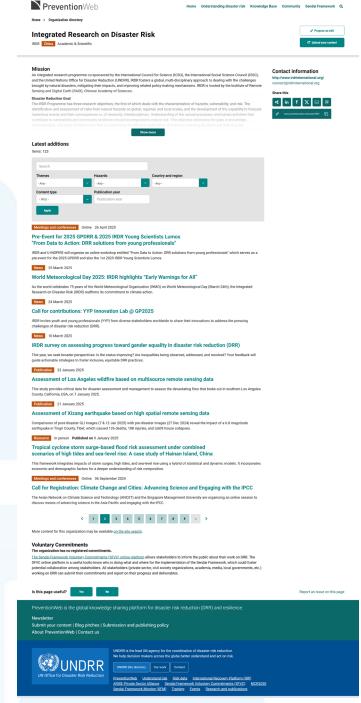
IRDR Outreach

- IRDR Website & IRDR Quarterly Newsletters: call for contributions from IRDR community
- IRDR activities promoted via ISC newsletters
- IRDR publications featured at PreventionWeb









IRDR Young Scientists Lumos









Pre-Event for 2025 GPDRR & 2025 IRDR Young Scientists Lumos (2nd)

UTC 8:00-9:00 (16:00-17:00 Beijing time), 1 June, Online

Localization of the Global Agenda: DRR solutions from young professionals

Concept Note and Agenda

Registration link:

https://zoom.us/webinar/register/WN_xippKqDLSy2Ptz7eKo5xtw

1. Rationale

To enhance the connection and promote the innovations and actions of IRDR young scientists, IRDR IPO designs a mechanism of "IRDR Young Scientists Lumos!", which will be webinars, sessions, meetings, or discussions mainly organized and participated in by young scientists and young professionals in the global disaster risk reduction (DRR) community.

In order to contribute to the <u>2025 Global Platform on Disaster Risk Reduction</u>, IRDR will coorganize several online workshops with DRR partners to present the innovations of young professionals from multi-stakeholders.

The topic of this Lumos is "Localization of Global Agenda: DRR solutions from young professionals". It highlights how young scientists and professionals translate global disaster risk reduction frameworks, such as the Sendai Framework for Disaster Risk Reduction, into concrete, practical actions at the local and community levels. It emphasizes innovative approaches tailored to local contexts, such as community-based

2025 IRDR Young Scientists Lumos (3rd)

Cultural Heritage Meets Resilience

Youth Innovation for DRR

UTC 8:00-9:30, 18 August

Speakers



Kazi Warisa Tabassum
Blending Instinct and Intelligence: A
Study of Traditional and Digital
Weather Forecasting



Youjing Li
Collective Memory of Disasters in Baishi,
China: Temporal Displacement, Risk
Perception, and Social Resilience



Bikansobera Patrick Amooti
Traditional Knowledge for Climate
Resilience and DRR in Uganda



Wenqian Gan
Cultural Heritage, and Environmental
Awareness and Protection (CHEAP)
Video Game

Senior Experts

- · Chris Ballard, Australian National University
- Maria Soledad Garcia Ferrari, University of Edinburgh







¹ Lumos: a wand-light charm in Harry Potter series. This charm is used to create light and reveal hidden things. Lumos here means that the young scientists create innovations and generate the impacts to the world.

Promoting best examples of young professionals

2025 Youth Climate Action and Disaster Risk Reduction Hackathon:

 Co-organized with UNESCO, the Horizon Global Youth Development Program and other partners, the hackathon, under the theme "Empowering Youth for a Healthy Planet", brought together over 300 young innovators from 15 countries to co-develop solutions to urgent environmental challenges. 16 innovations were awarded at the closing ceremony.

• IRDR Youth Podium:

- Seismic Performance Evaluation of Indigenous Brick Masonry Infill
 Panel Walls in Reinforced Concrete Structures;
- Applying Disaster Risk Assessment Results in Territorial Planning and Development Policies;
- Nyamwamba or the People;
- Empowering Communities and Protecting Lives: Trona Bay Enterprise's Hygiene Solution

Record Moment.



















THANK YOU!



Applications of IRDR ICoEs

Name of Proposed ICoE	Host Institute	Focal point
Hydroclimatic Disasters and Infrastructure Resilience	School of Engineering, Newcastle University, UK	Sean Wilkinson
Resilience Economics and Sustainable Risk Transitions	Department of Economics, National and Kapodistrian University of Athens, Greece	Stella Tsani
Resilience and Disaster Risk Innovation	School of Environment and Civil Engineering, Chengdu University of Technology, China	Homa Bahmani
Himalayan Disaster Risk and Resilience Studies	Centre for Disaster Studies (CDS), Institute of Engineering - Tribhuvan University, Nepal	Basanta Raj ADHIKARI
Interdisciplinary Research on Himalayan Risk and Resilience	Institute of Himalayan Risk Reduction, Nepal	Suraj Gautam
Informatics for Multi-hazard Risk Reduction	School of Architecture, Building and Civil Engineering (ABCE), Loughborough University, UK	Qiuhua Liang

IRDR @ ISC GA

- IRDR participated in the discussions during the pre-event workshops on 26 January and the "Muscat Global Knowledge Dialogue" on 27 28 January.
- IRDR participated in the 3rd General Assembly on 29-30 January, and the following pre-events:
 - Internal meeting: Central Asia/Transcaucasia
 - Meeting of ISC Affiliated Bodies
 - Forum of Category 3 Members Young academies and associations
 - Early- and Mid-Career Researchers' Roundtable
- Alik Ismail-Zadeh was selected as the member of Resolution Committee.
- Saini Yang read the statement of ISC Affiliated Bodies to ISC Strategic Plan 2025 2028.



Statement of ISC Affiliated Bodies

Affiliated Bodies of the ISC advance priority and policy-relevant science in a diversity of disciplinary, interdisciplinary, and transdisciplinary areas through the coordination of international scientific communities.

Such bodies are crucial for the implementation of the 2025-2028 strategic plan of the ISC. Affiliated Bodies invite further engagement, communication, and participation from all ISC members and scientists globally.

Activities after GA

- IRDR contributed to ISC AB newsletters.
- IRDR SC members Josephine and Soledad contributed to ISC AB Safeguarding and Enhancing International Scientific Collaboration for Climate Action for COP30.

Mapping IRDR Action Plan 2025-2027 with ISC Strategic Plan

1. International Science Agenda Setting

ISC Aspect	IRDR Alignment	Relevant IRDR Actions
	Focus on dynamic risk landscapes, technological innovation, and interdisciplinary collaboration.	 Action 6: Development of IRDR Work Streams and Pilot Studies "Climate change and public health" "End-to-end Early Warning" Action 11: Production of IRDR Working Papers and IRDR Special Reports IRDR working papers and Special Reports are produced on emerging, pertinent and integrated issues of DRR
Sustainability agenda	Integration with SDGs, climate adaptation, and risk-informed development.	Action 6: Development of IRDR Work Streams and Pilot Studies - Risk-informed development Action 10: Contribution to Global Assessment Report (GAR) series and its special reports
Human and societal development	Addressing inequalities, education, and youth empowerment.	Action 6: Development of IRDR Work Streams and Pilot Studies - DRR Education Action 15: IRDR Young Scientists Programme
Fundamental science as a route to development	Interdisciplinary research and capacity-building.	IRDR's mission

Mapping IRDR Action Plan 2025-2027 with ISC Strategic Plan

2. Evidence-Based Policymaking

ISC Aspect	IRDR Alignment	Relevant IRDR Actions/Documents
		Action 5: IRDR support to international and regional dialogue and exchanges
Delivering science advice to the multilateral system	Direct engagement with global policy platforms.	Action 8: Participation in the work of 'Hazards Definition and Classification' and 'Hazard Information Profiles' (HIPs)
		Action 12: Compilation of DRR Policy Briefs
		Outcomes of work streams and pilot projects
Enhancing science advice capabilities	Capacity-building through	Action 14: IRDR online lectures and training
of ISC Members	training and mentorship.	Action 15: IRDR Young Scientists Programme
Shaping the science-policy interface	Bridging research and decision-making.	Action 5: IRDR support to international and regional dialogue and exchanges Action 12: Compilation of DRR Policy Briefs

Mapping IRDR Action Plan 2025-2027 with ISC Strategic Plan

3. Science Diplomacy

ISC Aspect	IRDR Alignment	Relevant IRDR Actions/Documents
	Partnerships with global institutions and UN bodies.	 Action 4: New partnership development Partnership with UN agencies and international organisations Action 5: IRDR support to international and regional dialogue and exchanges
country-level		Action 3: Enhancement of IRDR NCs and ICoEs Action 5: IRDR support to international and regional dialogue and exchanges Action 16: Alliance with DRR youth initiatives and networks

IRDR @ GPDRR2025

- Policy Brief
 - Disaster Risk Reduction Products and Processes: Knowledge Sharing for Placeand Context- Specific Action
- IRDR Pre-events for GP (IRDR Young Scientists Lumos)
 - From Data to Action: DRR solutions from young scientists
 - Localization of the Global Agenda: DRR Solutions from Young Professionals



DISASTER RISK REDUCTION PRODUCTS AND PROCESSES: KNOWLEDGE SHARING FOR PLACE- AND CONTEXTSPECIFIC ACTIONS

Authors:Naxhelli Ruiz-Rivera (Mexico), Maria Soledad Garcia Ferrari (United Kingdom), Alik Ismail-Zadeh (Germany), Saini Yang (China), Christopher Garimoi Orach (Uganda), Khamarrul Azahari Razak (Malaysia), Josephine Ngaira (Kenya), Fang Lian (China)
Reviewers:John Handmer (Australia), Allan Lavell (Costa Rica), Virginia Murray (United Kingdom), and Coleen Vogel (South Africa)









IRDR @ GPDRR2025

- IRDR& U-INSPIRE Alliance Innovation Platform: Actionable Science for Disaster Risk Reduction: Transformative, Actionable scientific solutions through Youth, Young Scientists, and Young Professionals' contribution for DRR
- IRDR ICoE Coherence (NIED) Innovation Platform: E-Defense: The World's Largest Three-Dimensional Full-Scale Earthquake Testing Facility
- Stakeholder Forum on DRR: Implementation of Sendai Framework for DRR:
 Role of Science and Technology in strengthening implementation at local level
- World Resilient Recovery Conference (WRRC) TS6: Turning Experience into Action: Learning from Large-Scale Disasters
- WRRC Plenary 2: From Commitment to Action: Leadership for Resilient Recovery

IRDR @ GPDRR2025

- Learning Lab: Local public services and urban resilience: Science-based participatory approaches for inclusive risk-sensitive planning
- Learning Lab: The Disaster Forensic Investigations Approach Understanding root causes and disaster risk drivers to enhance DRR
- TS1-2: From data to action: Strengthening the understanding of disaster impact data and its application in decision-making
- TS1-3: Development and adoption of technologies to accelerate disaster risk reduction
- TS4-1: Inclusive and multisectoral approach to effective preparedness
- Ignite Stage: The multi-hazard platform for Early Warning Systems for All (Speaker: Nurfashareena Muhamad, IRDR ICOE SEADPRI-UKM)
- Ignite Stage: Strengthen disaster risk reduction in urban resettlement processes (Speaker: Emmanuel Raju, IRDR Young Scientist)

Applications of IRDR Pilot Studies

Overall Application Statistics: 73 Applications in total

Continent	Country
Africa (53)	Ethiopia (18), Tanzania (6), Nigeria (5), Madagascar (4), Mozambique (3), Uganda (3), Mali (3), South Africa, Burkina Faso, Cameroon, Côte d'Ivoire, Ghana, Kenya, Zimbabwe, Botswana, Algeria, Benin
Asia (14)	India (3), Nepal (3), Georgia (2), China, Indonesia, Japan, Malaysia, Bangladesh, Jordan
Europe (3)	Greece (2), Belgium
North America (2)	Canada, Trinidad and Tobago
Oceania (1)	New Zealand

Incomplete Applications (Missing Research Areas or Summary): 4

IRDR NC and ICoE Applications: 51

- ICoE REaL (Risk Education and Learning) 46
- ICoE CR (Community Resilience) 1: Citizen Science Research
- ICoE-NSET (National Society for Earthquake Technology-Nepal) 1: DRR Education
- ICOE-SEADPRI-UKM (Malaysia) 1: Risk-informed Development and Citizen Science Research
- ICoE Coherence (Japan) 1: Climate Change and Public Health
- NC Iran 1: Risk-informed Development, DRR Education and Citizen Science Research

Applications by Research Theme:

• Risk-informed Development (29), Climate Change and Public Health (27), Citizen Science Research (25), DRR Education(21), DRR Finance (2)

Applicants of IRDR Young Scientists Programme

Applicants: 41 (17 Female, 24 Male)

- Bachelor 1
- Master Student 3
- Master 8
- PhD Candidate 18
- PhD 10
- Post Doc 1

Continent	Countries
Asia (19)	Pakistan (6), China(4), India(2), Japan, Oman, Türkiye, Afghanistan, Nepal, Indonesia, Bangladesh
Africa (12)	Uganda (4), Kenya (2), Ethiopia (2), Zambia, Zimbabwe, Lesotho, Rwanda
Europe (6)	Germany, Portugal, Italy, United Kingdom, Switzerland, France
Oceania (3)	New Zealand (3)
South America (1)	Brazil (1)

IRDR IPO Action Plan for 2026

Enabling a full operation of IRDR Phase II

SC29, establishment of new ICoEs (≥2), new batch of YSP, new partners (≥3)

Coordination of international research cooperation

 Development of IRDR Work Streams (≥2), organization and participations in international and regional dialogues (≥ 10)

Knowledge production and outreach

 Special reports (≥2), policy briefs (≥2), promotion of IRDR on the portal of partners

Empowerment of young DRR professionals

IRDR YS Lumos (≥4), IRDR Youth Podium (≥4 cases), training workshops
 (≥2)