

Closure Summary on IRDR Action Plan 2018-2020

Prepared by IPO, 12 October 2021

This brief summary on IRDR Action Plan 2018-2020 is made for IRDR Scientific Committee for the purpose of record and official closure of its Action Plan adopted in April 2018 in Beijing. There were 23 planned actions and the records have indicated that the plan has been successfully implemented.

1. Improve Governance of IRDR

Action	Description	Deliverables	Lead Group	Outcomes & Impact	Timeframe	
1	The Coordination Group meeting	An annual meeting of the Coordination Group	Strategic decisions and recommendations to IRDR SC and IPO	ISC Secretariat	Improving programme development policy and coherence & communication among co-sponsors, SC and IPO	2019-2020

The Coordination Group meeting was held on 30 September 2019 in Geneva. In this meeting, ISC and UNDRR decided to develop a new DRR research agenda and entrusted IRDR to lead and facilitate the development process. The new DRR research agenda has been developed and has been launched as the Risk Science Research Framework in June 2021 at the IRDR Conference.

Due to the pandemic, the Coordination Group meeting was suspended in 2020 but coordination has been continued through *ad hoc* exchanges.

Action	Description	Deliverables	Lead Group	Outcomes & Impact	Timeframe	
2	Annual donor reporting	Preparation of a comprehensive report of IRDR to the donors and co-sponsors on programme implementation	Annual report	IPO	Transparency and annual review of accountability vs IRDR goals and objectives	2018-2020

IPO reported work of IRDR and its IPO at each session of IRDR SC meeting during 2018-2020. CAST organised a financial audit of IPO in January 2021.

2. Expand the IRDR Network and Scientific Outputs

Action	Description	Deliverables	Lead Group	Outcomes & Impact	Timeframe	
3	Contributing toward the improvement of coherence between SFDRR, SDGs and the Paris Agreement	Mainstreaming relevant SDGs and climate targets related to DRR in IRDR WGs, NCs, ICoEs and Young Scientists	IRDR key programme components and their products with clear indications to SDGs and climate targets	SC, IPO	IRDR showcases the interconnection of SFDRR priorities and the targets with SDG targets and other UN frameworks on SD	2018-2020

5	Working Groups research implementation with research team open to IRDR community and external partners	<ul style="list-style-type: none"> - Revising working groups and define activities - Including the previous SC members - Organising a working session/workshop to take stock and reprioritize/align Integrated Research and WG's task around SFDRR and SDG. - Capacity Building - Promoting Integrated research approach and partnership with CODATA 	<p>Specific Research Plans of WG and enhanced research teams</p> <p>A number of working papers from WGs and other IRDR components</p> <p>ICoE joint technical workshop/conference</p>	WG Chairs and Co-Chairs, IPO	Enhanced WG outcomes Linkage and cooperation among SC, WG, ICoE's, NC's, Young Scientist and ISC Regional Offices and UNISDR Offices improved.	2018-2020
7	New case studies on Integrated Research on Disaster Risk	Develop case studies with reinforced WG's on Integrated Research for DR, Policy and Practice.	Case Studies developed by region	WG's, ICoE's, NC's, Young Sc	Capacity building and IRDR network strengthened	2019-2020

2.1 IRDR Working Paper Series

IRDR proposed the IRDR Working Paper Series in the 22th of IRDR SC Meeting in 2018. This Working Paper Series is made to facilitate the dissemination of the work of IRDR NCs, ICoEs, YS and institutions and individual experts that IRDR considers relevant to its mission and research agenda, and of important values for much broader range of audience working in DRR domains. All working papers in this series anchor their relevance and contributions of their work toward SFDRR, IRDR, SDGs and Paris Agreement on climate change. The authors of the working papers and IRDR intend that through this working paper series will not only bring new knowledge, experience and information toward disaster risk reduction, but also help build better coherence of DRR with the mainstream agenda of UN today toward inclusive, resilient and sustainable human societies. Since 2019, IRDR has published 11 IRDR Working Papers as listed below:

1st Batch:

- A Framework for Transforming the Relationship Between Development and Disaster Risk
- Emergency and Disaster Management Programs in disaster prone, resource deficit context
- Making Cities Disaster Resilient in a Changing Climate
- Socio-ecological Resilience as a Sustainable Development Strategy for Remote Rural Settlements in Different Geo-climatic Zones of India
- Silk Road Disaster Risk Reduction
- Extraction and Analysis of Earthquake Events Information based on Web Text
- Disaster Metadata Management System Based on pycsw and Its Application

2nd Batch

- The Biosafety-Biosecurity Culture Interface in Life Sciences Research
- Understanding the Geological Environmental Risks of Permafrost Degradation -Environmental and engineering geology in permafrost area in Northeast China

- Sustainable Infrastructure Development, Risk Perception and Vulnerability Assessment in Indian Himalayan Region
- Mapping Disaster Risk Reduction Institutions Using Web-based Accessible Information

2.2 IRDR Policy Briefs

The policy briefs were presented at the Science and Policy Forum on 13 and 14 May 2019 in Geneva, providing insights from disaster risk reduction experts to science partners, Ministries of Science, scientific advisors and stakeholders, to enhance their understanding of the Sendai Framework and its connections to the SDGs and other agreements. These policy briefs also highlight as the importance of ensuring disaster data archives are standardised to maximise the valuable opportunities to acquire better information about the health, economic, ecological and social costs of disasters.

- Disaster Loss Data in Monitoring the Implementation Of The Sendai Framework (Bapon Fakhruddin, Virginia Murray and Fernando Gouvea-Reis)
- Achieving Risk Reduction Across Sendai, Paris And the SDGs (by John Handmer; Anne-Sophie Stevance, Lauren Rickards, and Johanna Nalau)

2.3 IRDR Young Scientists Book

Integrated Research on Disaster Risks: Contributions from the IRDR Young Scientists Programme was published. This book is a collection of works written by IRDR young scientists, presenting up-to-date research on disaster risk reduction from multi-disciplinary perspectives and different parts of world. The editors of this book are Riyanti Djalante, Mizan B. F. Bisri and Rajib Shaw.

2.4 ICoE workshops

Some IRDR ICoEs organised workshops as the Pre-sessions of IRDR 2021 Conference. The main purposes of the Pre-sessions are to give timely input to Global Research Agenda and as part of the consultation process from different stakeholders. Inputs are particularly sought from the perspectives of regional and national needs and dynamics, and interest from special fields of research or groups, such as young professionals and industries in DRR, and make suggestions and recommendations on how to implement the new research agenda.

- Latest frontier and application of Health-EDRM within the scope of COVID-19
Organizer: Collaborating Centre for Oxford University and CUHK for Disaster and Medical Humanitarian Response (CCOUC), The Chinese University of Hong Kong; IRDR ICoE-CCOUC
Co-organizers: Integrated Research on Disaster Risk (IRDR); CUHK Centre for Global Health (CGH); CUHK JC School of Public Health and Primary Care (SPHPC); GX Foundation
- Climate change and One health
Organizer: IRDR ICoE on Risk Interconnectivity and Governance on WEather/Climate Extremes Impact and Public HEalth (RIG-WECEIPHE), Fudan University
Co-organizers: Integrated Research on Disaster Risk (IRDR), IRDR CHINA, WMO/IGAC MAPAQ Asian Office Shanghai, WHO Collaborating Centre for Health Technology Assessment and Management

- ANSO-DRR consultation (close door)
Organizer: Alliance of International Science Organizations on Disaster Risk Reduction (ANSO-DRR)
Co-organizers: Integrated Research on Disaster Risk (IRDR); Institute for Disaster Management and Reconstruction, Sichuan University - The Hong Kong Polytechnic University
- Risk Science for Resilient Cities - From Concept to Action
Convened by: IRDR ICoE-SEADPRI-UKM, UNDRR Asia Pacific Science Technology Academia Advisory Group (AP-STAG) and Asian Network on Climate Science and Technology (ANCST)
Supported by: UNESCO Youth and Young Professionals Group on Disasters, International Science Council – Regional Office for the Asia Pacific (ISC-ROAP) and the Academy of Sciences Malaysia
- Promoting Coherence among Disaster Risk Reduction, Climate Change Adaptation, and Sustainable Development by Establishing an “Online Synthesis System (OSS)” and Fostering “Facilitators” using OSS
Organizers: IRDR NC Japan; Science Council of Japan
- Global Research Agenda on DRR - Perspectives from Africa
Organizers: IRDR ICoE for Risk Education and Learning (IRDR ICoE-REaL), PERIPERI U Secretariat, Stellenbosch University, South Africa

Action	Description	Deliverables	Lead Group	Outcomes & Impact	Timeframe	
4	Partnership development with G-STAG and Global ST partnership	Making joint effort with G-STAG and regional STAGs and be active in Global ST partnership in promoting integrated DRR research	IRDR contribution at G-STAG, regional STAG and Global ST partnership meetings	SC, IPO in cooperation with STAG	IRDR recognised as one of main driving forces in global STI mobilization for SFDRR	2018-2020

Supported by IRDR, APSTAAG and other partners, UNDRR organised the 2nd Asian Science and Technology Conference for Disaster Risk Reduction in 2018 and 3rd Asia Pacific Science and Technology Conference for Disaster Risk Reduction in 2020. *Science & Technology into action: Disaster risk reduction perspectives from Asia* and *Science and Technology Status for Disaster Risk Reduction in Asia-Pacific* were published in the perspective conference.

Action	Description	Deliverables	Lead Group	Outcomes & Impact	Timeframe	
6	WGs on SFDRR, CCA and SDG's	Creation of a New Working Group to align IRDR research and overall IRDR work to SFDRR, CCA and SDG's	WG reports	Working group chairs and co-chairs	IRDR position vs global climate change synergized	2018-2020

The IRDR WG on DRR, CCA and SDGs was co-chaired by Riyanti Djalante and Rajib Shaw. The collaborators include Joy Pereira (ICoE SEADPRI-UKM), Emily Chan (ICoE CCOUC), Frank Thomalla (ICoE TDDR), and Ailsa Holloway (ICoE REaL). This WG in collaboration with Tohoku University, Keio University, and United Nations University published *30 Innovations for Disaster Risk Reduction* to identify 10 most important innovations, from the global to local level, dealing with impacts of climate risks employing improved/expanded livelihood strategies.

Action		Description	Deliverables	Lead Group	Outcomes & Impact	Timeframe
8	Continuation of Young Scientists Programme	Recruitment of young scientists through workshops and training activities	New Young Scientists members	IPO, SC Working Groups	START partner	2018-2020

The 4th batch of IRDR Young Scientists opened the application in November 2018 and announced the result in March 2019. 49 young researchers were accepted.

Action		Description	Deliverables	Lead Group	Outcomes & Impact	Timeframe
9	Expansion of IRDR base of experts by appointing “Associate Members” (<i>name will be changed with prior agreed TOR by the co-sponsors</i>)	Exemplary individuals in integrated DRR research and previous SC members	List of proposed new members	IPO	Reinforce IRDR Working Groups Support for capacity building	2018-2020

This action was suspended considering that IRDR has been at the ending stage of its current phase.

Action		Description	Deliverables	Lead Group	Outcomes & Impact	Timeframe
10	Support and partnership with IRDR associated projects	Three specific approved projects (<i>DBAR DRR WG, SiDRR, NZ</i>)	DRR databases, models, training packages and reports	IPO with specific project leaders	Concrete cases and products in support of IRDR mission and objectives.	2017 onward

2.5 DBAR DRR WG

IRDR co-organized the serial DBAR conferences and the corresponding DRR sessions. The 3rd DBAR Conference, which took place in December 2018, in turn marked the beginning of the critical first implementation phase of the DBAR Science Plan after more than two years of consultations with the Earth observation community in a series of meetings in Asia and Africa. The 4th DBAR Conference, convened in Shenzhen on December 17, 2019, with the theme “Digital Belt and Road Facilitates Sustainable Development”, aimed to promote communication and cooperation between experts and scholars from all around the world on the issues related to selection and demonstration of Sustainable Development Goals (SDGs) most relevant to the “Belt and Road” region, mechanisms to aggregate and share Big Earth Data within the “Belt and Road” countries, means to enhance the capability of scientific discovery and decision-making related to Big Earth Data, and promotion of the sustainable development process by using Big Earth Data.

2.6 SiDRR

The International Conference on Silk-Roads Disaster Risk Reduction and Sustainable Development (SiDRR Conference 2019) took place in Beijing from 11-12 May 2019. IRDR organized two sessions at this Conference *Mobilization of International Science and Technology Collaboration on Disaster Risk Reduction and Improving Policy and Science & Technology (S&T) Interface in Disaster Risk Reduction*.

SiDRR consolidated its research results by publishing the "Atlas of Silk Road Disaster Risk" in 2020. The Atlas consists of 158 maps that provide details on the environment and disaster characteristics, along with 19 disaster case studies, and disaster risk assessment results at various scales throughout the Silk Road area.

2.7 Multi-hazard early warning systems

The multi-hazard early warning system projects have been commissioned for more than 25 countries including nations in the Caribbean, Africa, South-east Asia, and the Pacific.

Action		Description	Deliverables	Lead Group	Outcomes & Impact	Timeframe
11	Support for ST Roadmap	Specific contributions to Expected Outcomes <i>Understanding Disaster Risk</i> (1,2; 1.4); and <i>Strengthening Disaster</i>	<i>Risk Governance to Manage Disaster Risk</i> (2.1); among others through different WG's	SC, WGs, ICoEs, NCS	Use of ST, in particular integrated research approaches, in DRR related governance improved	2018 onwards

IRDR supports the contextualization and revision of the Global Science and Technology Road Map. The revised version of ST Roadmap was launched at the Science - Policy Forum of GP2019

Action		Description	Deliverables	Lead Group	Outcomes & Impact	Timeframe
12	Periodic synthesis case study. A selected team of authors to produce a short report as an exemplar of Tokyo statement outcome	Conduct a synthesis of state of knowledge on SFDRR priorities targeting 2019 Global Platform	Reports of the case study	ISC, IPO, Risk-KAN Development Team	A joint IRDR contribution toward 2019 Global Platform	2018-2019

This action aims to conduct a synthesis of state of knowledge on SFDRR priorities targeting 2019 Global Platform and was planned to be discussed after GP. However, no further follow-ups.

An IRDR Working Group was established by IRDR SC Member Dr. Haruo Hayashi to conduct study on Nation's Synthesis on Disaster Risk Reduction Supported by Science and Technology. A concrete proposal of OSS (full name) has been developed with number of applications in countries such as Myanmar, Philippines and Vietnam.

Action		Description	Deliverables	Lead Group	Outcomes & Impact	Timeframe
14	Contributing to ISC's leading role in the S&T Major Group for the 2019 Global Platform	Lead and organise specific events and dialogues within S&T Major Group at 2019 Global Platform	Suggestions and recommendations of the S&T MG events	ISC, IPO, SC and some ICoEs	Advancement of S&T contributions in the implementation of SFDRR	2018-2019

IRDR together with ISC and UNDRR organised a Science and Policy Forum for the Implementation of the Sendai Framework for Disaster Risk Reduction as one of the pre-conferences in GP2019. At this Forum, two policy briefs were launched, providing key messages for policy-makers on disaster-loss data and the synergies

between the major global agreements of the Sendai Framework on Disaster Risk Reduction, the Paris Agreement and the SDGs. IRDR community contributed to the Official Statement by the Scientific and Technological Community (STC) Major Group leading by ISC. IRDR ICoEs organised some side-events and presented their work in the Ignite Stage.

A side event on science for DRR was held at the Twenty-Second session of the United Nations Commission on Science and Technology for Development (CSTD) in parallel with GP2019.

Action	Description	Deliverables	Lead Group	Outcomes & Impact	Timeframe	
16	Contribute actively toward the development of Risk-KAN	Working with WCRP, Future Earth and other partners to develop a Knowledge Action Network	Risk-KAN become operational	ICSU, ED, IPO, SC members	Improved ST action networks for SFDRR	2018-2020

IRDR SC member Dr. Jana Sillmann accepted to be the focal point from IRDR to Risk-KAN and has been the co-chair in Development Team. Risk-KAN established 9 working groups to contribute to the implementation of the objectives of the Risk KAN.

IRDR supported the KAN-WMO-Future Earth to organise the Summer School “Institute of Advanced Studies in Climate Extremes and Risk Management” in Nanjing in 2019.

Action	Description	Deliverables	Lead Group	Outcomes & Impact	Timeframe	
17	Regional DRR Events in all regions	IRDR contributing through SC members, NCs and ICoEs to DRR regional meetings and events on DRR & SDGs	Participation and technical advice	SC, NCs and ICoEs in liaison with ISC and UNISDR regional offices; IPO to report	IRDR Promotion and Visibility of the Programme	2018-2020

At the 3rd Huangshan Dialogue on UNESCO Sites and Sustainable Development, which took place from 31 October-3 November 2018, UNESCO, its International Centre on Space Technologies and Cultural Heritage (HIST), and IRDR co-organised the session *Disaster Risk Assessment and Mitigation for UNESCO Sites*. The technical panel discussion resulted in an outcome document in which UNESCO and IRDR proposed several actions for consideration at the GP2019.

IRDR and UNESCO helped facilitate the establishment of U-INSPIRE together with UNESCO and IDMR and acted as organisers of the workshop at which the U-INSPIRE initiative was formulated and launched. This occurred at the November 2018 Regional Workshop on SETI in DRR in Asia and the Pacific. Some IRDR young scientists have been involved in U-INSPIRE and established and chaired the national chapters of U-INSPIRE.

Action		Description	Deliverables	Lead Group	Outcomes & Impact	Timeframe
18	Co-organize Scientific Forum on Landslides	Work with ICL to organize Tokyo WLF5 in Kyoto	Specific papers and publications on landslide related risks	ICL, SC, IPO	Specific contribution of IRDR toward Sendai Partnership (on landslides)	2020

The WLF5 was postponed to November 2021. IRDR contributed a paper on DRR of UNESCO sites, **“Integrating DRR into the conservation and management mechanisms of the internationally designated sites – view of IRDR”**. IRDR ED will chair the session 1-3 Landslides at UNESCO designates sites and contribution from WMO, FAO, IRDR. And IRDR Science Officer will deliver a presentation in this session.

Action		Description	Deliverables	Lead Group	Outcomes & Impact	Timeframe
19	IRDR International Conference (Resource to be identified and mobilised)	Integrated Science Technology Innovation (STI) on DRR and advancement of ST Roadmap	Reports on integrated knowledge for DRR Dialogue and new recommendations on STI for DRR Lessons learnt and proposals for ST Roadmap implementation	SC, IPO	A new Science Plan of IRDR toward 2030, and a stronger global alliance in STI for SFDRR and SDGs	2020

The IRDR International Conference was postponed to 2021 due to impact of Covid-19 Pandemic. The Conference was successfully organized in 8-10 June 2021, with active participation from IRDR community and DRR related institutions worldwide.

3. Improve the visibility of IRDR

Action		Description	Deliverables	Lead Group	Outcomes & Impact	Timeframe
20	Communication and outreach	Implementation of IRDR communication strategy approved at 18 th session of SC meeting	Operation in major social media, web and wikipedia	IPO	Enhanced IRDR communication and public understanding	2018-2020

New IRDR website has been completely re-designed with new structure and layout, and was launched before 2021 IRDR Conference. IRDR keeps active in outreach through Twitter and Facebook. 2021 IRDR Conference was successfully communicated through above social media as well as Youtube. Contributions toward **Wikipedia has proved to be difficult and was not successful.**

Action		Description	Deliverables	Lead Group	Outcomes & Impact	Timeframe
21	Special IRDR Journal Issue	Specific topic, tentative	1 Publication	SC	IRDR Legacy	2018-2019

22	An IRDR Handbook	A stock taking handbook of science on Integrated Research on DRR	1 Publication	SC and Working Group	IRDR Legacy	2018-2020
23	Scientific/Policy Output 2020 per IRDR WG	Short publication for decision makers on policy and practice	1 short Publication Guidelines	Working Groups	IRDR legacy	2018-2020

The special issue and the handbook were decided by IRDR SC to be cancelled at SC21 in 2019. In the 22th of IRDR SC meeting in October 2018, it was decided that IRDR should compile the ten years' work. IPO organised an editing team and collected and compiled the information materials on achievements, experiences, lessons learnt, suggestions and recommendations from IRDR SC members, Working Groups, National Committees, International Centres of Excellence and IRDR Young Scientists. In the IRDR 2021 Conference, the *IRDR Compilation: A ten-year Science Quest for Disaster Risk Reduction* was officially published and launched.