

Item 3: IRDR Compilation

**A ten-year science quest for disaster risk reduction
2010-2020**

25th IRDR SC meeting

30 March, 2021

- Process and contributions
- Outline of Compilation
- Next steps
- Suggested decisions for follow-up

Process and contributions

- 10 Oct 2019 – 22nd IRDR SC meeting decided to start the compilation
- 15 Nov 2019 – Timeline set up with feedback from Chair and Vice-chairs
- 2 Mar 2020 – Revised timeline
- 3 Mar 2020 - Call for contributions from NCs and ICoEs
- 11 Mar 2020 – Call for contributions from former-SC members
- 17 April 2020 – Call for contributions from IRDR young scientists
- Weekly meetings since 3 March 2020
- March to Oct 2020 - Numerous individual contacts with NCs and ICoEs
- 10 Nov 2020- [Draft of Executive Summary submitted in SC 24 for endorsement](#)
- Nov, Dec 2020 – Full report compilation
- Feb, March 2021 – Language editing
- 24 March 2021-[Draft of IRDR Compilation ready for review](#)

Draft Executive Summary

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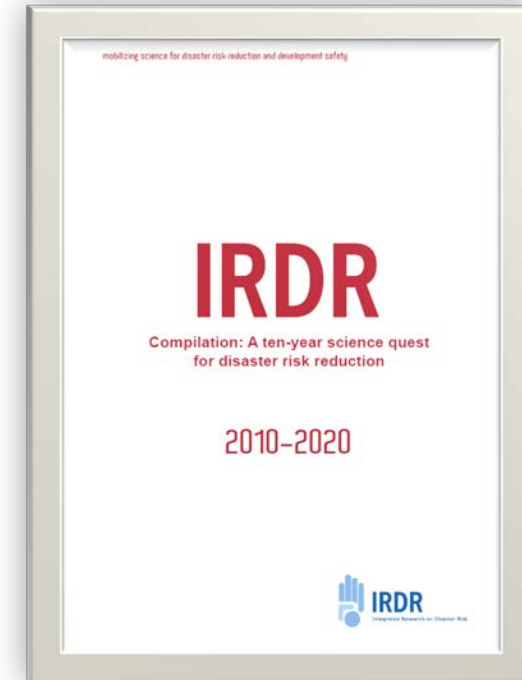
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- Chapter 1: IRDR, an Evolving Science Programme
- Chapter 2: IRDR Research Objectives and Actions
- Chapter 3: Advancing International Scientific Cooperation and Dialogue
- Chapter 4: Programme Governance, Operational Mechanism and Management
- Chapter 5: Challenges in a Diverse and Dynamic DRR landscape
- Closing remarks

Chapter 1

1. IRDR: an evolving science programme

1.1 Initial rationale and programme setting

1.2 Mission, Research Objectives and Cross-cutting Themes

1.3 From Hyogo to Sendai: IRDR contribution

1.4 Responding to the changing DRR landscape/contexts

1.4.1 IRDR Strategic Plan 2013 – 2017

1.4.2 IRDR Action Plan 2018-2020

1.5 Coherence with other UN 2030 agreements

Reference

Chapter 2

2. IRDR Research Objectives and IRDR in actions

2.1 Highlights of key results and impact of IRDR work, per the three main Research Objectives and eight Sub-objectives.

2.2 Highlight of results and impacts of IRDR work, per each of three IRDR cross-cutting themes

2.3 Important achievements of IRDR that were not covered by IRDR Science Plan 2010-2020

Reference

Chapter 2

2. IRDR Research Objectives and IRDR in actions

2.1 Highlights of key results and impact of IRDR work, per the three main Research Objectives and eight Sub-objectives.

Obj. 1: Characterization of Hazards, Vulnerability and Risk

- O1.1 Identifying Hazards and Vulnerability leading to Risks
- O1.2 Forecasting Hazards and Assessing Risks
- O1.3 Dynamic modelling of risk

Obj. 2: Understanding decision-making in complex and changing risk contexts

- O2.1 Identifying relevant decision-making systems and their interactions
- O2.2 Understanding decision-making in the context of environmental hazards
- O2.3 Improving the quality of decision-making practice

Obj. 3: Reducing risk and curbing losses through knowledge-based actions

- O3.1 Vulnerability assessments
- O3.2 Effective approaches to risk reduction

Chapter 2

O1.1 Identifying Hazards and Vulnerability leading to Risks

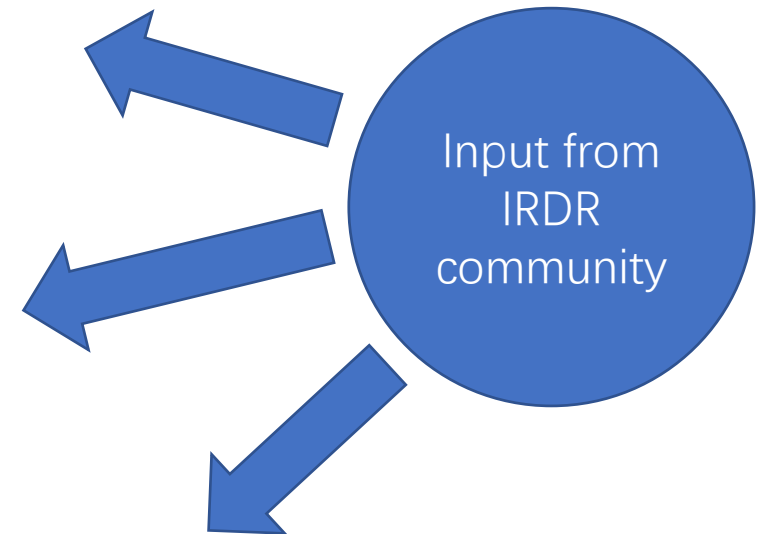
- Gaining insight into Root Causes of Risk and Risk production—Forensic Investigations of Disasters (FORIN)
- Long-term effects of Disaster Chains triggered by Mega-earthquake
- Characterisation of Hazard, Vulnerability and Exposure
- Understanding, Evaluating and Modelling Risk and Safety
- Hazard-centred Territorial Management
- What is Risk?

O1.2 Forecasting Hazards and Assessing Risks

- Typhoon monitoring and forecasting
- Improving Multihazard Risk Assessment
- National Hazard Forecasting Models in New Zealand
- How to better forecasting hazard and risk?

O1.3 Dynamic modelling of risk

- Integrated Iran Natural Hazards Risk and Resilient Model/Toolbox (IRRM)
- RiskScape + MERIT Modeling Tools for Resilience Investment
- Factors and temporal variation of emissions from dust sources in Central Asia over the past 40 years



Chapter 2

O2.1 Identifying relevant decision-making systems and their interactions

- Understanding how mainstream community/cultural processes influence resilience
- Association of State Floodplain Managers
- Formulation of Earthquake Disaster Management Master Plans
- The current situation in decision making

O2.2 Understanding decision-making in the context of environmental hazards

Risk Interpretation and Action (RIA)

- Disaster Risk Reduction and Climate Change Adaptation
- Composite indicators reflecting disaster risk and risk management
- Understanding Decision-Making through Interviews
- Australian Natural Hazards Management Conference
- Multi-Risk perception barometers and territorial observatories

Chapter 2

O2.3 Improving the quality of decision-making practice

- Assessment of Integrated Research on Disaster Risk (AIRDR)
- Digital Belt and Road platform for integrated research on climate change and disaster risk
- Serious Gaming: Risk Assessment Model Simulation for Emergency Training Exercise (RAMSETE)
- Promoting disaster risk reduction as the first step to climate change adaptation
- Bridging gaps between the city governments & the surrounding village authorities
- Guidelines formulated to support the alignment of development and DRR processes
- Improving spatial planning and governance
- Analytics and Ethics of Disaster Risk Decision-Making in France

Chapter 2

O3.1 Vulnerability assessments

- Lessons learned from the Yangtze River flood in 1998 and 2016, China
- Conceptual development of vulnerability and resilience assessments
- Liquefaction Resistance Index Map
- Social Vulnerability, Resilience, and Justice during Disaster Recovery
- Evolution in the Characterization and Assessment of Vulnerabilities

O3.2 Effective approaches to risk reduction

- Institutional-socio-earth-economical-technical-systems (ISEETS) framework
- Increasing earthquake awareness among vulnerable communities
- Generating and communication of risks and vulnerabilities related research outputs
- The implementation and the monitoring of informed risk reduction decisions
- Providing science and evidence-based disaster risk management knowledge
- The intersection of health and disaster risk reduction: the concept of Health-EDRM:
- Improving resilience and Building back better
- Tsunami Blue Lines
- National Research Priorities for Natural Hazards Emergency Management
- Enhancing Synergies for disaster Prevention in the EurOpean Union (ESPREssO) Vision Paper

Chapter 2

2. IRDR Research Objectives and IRDR in actions

2.2 Highlight of results and impacts of IRDR work, per each of three IRDR cross-cutting themes

Theme 1: Capacity building

T1.1 Map capacity for disaster reduction.

T1.2 Build self-sustaining capacity at various levels for different hazards

T1.3 Establish continuity in capacity building

Theme 2: Case studies and demonstration projects

Theme 3: Assessment, data management and monitoring

T3.1 Guidelines for consistent data management and assessments of hazards, risk and disasters

T3.2 Applying local assessments globally and global assessments locally

Chapter 2

T1.1 Map capacity for disaster reduction.

- Enhancing Risk Management Capabilities Guidelines
- Cross-disciplinary research and cooperation
- Development of guidelines, curricula, manuals, methodologies and research papers
- Integrated Tsunami Research in Indonesia

T1.2 Build self-sustaining capacity at various levels for different hazards

- A Regional Research Strategy Report for DRR
- National Disaster Resilience Strategy - Rautaki ā-Motu Manawaroa Aituā
- Explaining and extending the "+2 formula" into tasks
- Coordination between ANCST and ASEANadapt
- Research, expertise and regulation of disaster risks in France

Chapter 2

T1.3 Establish continuity in capacity building

- Academic Programmes and Summer Courses
- Training workshops for scientists
- Public Education Campaign
- Digital Belt and Road (DBAR) Program

Theme 2: Case studies and demonstration projects

- SiDRR, the Flagship Project of IRDR
- Kuala Lumpur Multi-hazard Platform
- Open access digital platform for data and information sharing
- Innovative programs related to earthquakes in the IRDR ICoE NSET
- Integrated Research after Christchurch Earthquake
- Northern Tornadoes Project (NTP)
- Japan Academic Network for Disaster Reduction (JANET-DR)

Chapter 2

T3.1 Guidelines for consistent data management and assessments of hazards, risk and disasters

- Disaster Loss Data
- Flood mapping and the Intensity-Duration-Frequency Curves under Climate Change tool
- Landslide Dataset for Forecasting Models
- Typhoon Disaster Information System (TCDIS)
- Advanced technologies for DRR
- National Periodic Synthesis Reports System

T3.2 Applying local assessments globally and global assessments locally

- Research Report on Disaster Reduction in the Belt and Road Area
- Multiple hazards, vulnerability, risk assessment and the spatial databases
- Assessment on skilled human capital for DRR and resilience

Chapter 2

2. IRDR Research Objectives and IRDR in actions

2.3 Important achievements of IRDR that were not covered by IRDR Science Plan 2010-2020

- DRR, CCA and SDGs
- Online Resource Center (ORC)
- Increasing recognition and acceptance of the importance of higher education institutions (HEIs) in the field of disaster risk
- Transformation on developments in reducing disaster risk
- Iran Earthquake Insurance
- Post-Disaster Reconstruction and Recovery in Nepal
- IRDR Young Scientists Programme

Chapter 3

3. Advancing international scientific cooperation and dialogue

3.1 The global position of IRDR in DRR

Roles and relevance of IRDR as seen by IRDR SC members and Executive Directors

3.2 IRDR as the science and policy interface

3.2.1 Dialogues through meetings and conferences

3.2.2 IRDR Policy Briefs

3.2.3 IRDR Working Paper Series

3.3 Cooperation with IRDR partners

3.3.1 Within ISC community

3.3.2 With UN agencies and programmes

3.3.3 Global or regional partners beyond ISC and UN community

Chapter 4

4. Programme Governance, Operational Mechanism and Management

4.1 Structure of the IRDR Community

IRDR SC

IRDR National Committees (NCs) and Regional Committee (RC)

IRDR ICoEs

IRDR WG

IRDR Young Scientists Programme

4.2 Institutional capacity gaps: views and comments from members of IRDR Community

4.3 Assessment and important recommendations from the mid-term review of 2016 and the Action Plan 2018-2020

4.4 Programme management

4.4.1 Overall management arrangements

4.4.2 Financial management

Chapter 5

5. Challenges in a diverse and dynamic DRR landscape

5.1 Insights from NCs and ICoEs on key challenges and lessons learnt

5.2 Comments on key challenges and lessons learnt, and directions for future cooperation from SC members and EDs

5.3 Preparation of the new DRR research agenda

Next steps

- IRDR Community to review this version of draft and provide feedback **by 10 April**

Chapter No.	
Line No.	
Original text	
Revised text	

- Preface and foreword (by ISC/UNDRR, CAST/CAS, SC/IPO)
- Final language editing and layout design
- Publication process (in consultation with Co-sponsors and host)

Suggested decisions for follow up

- Endorse the overall structure of the Compilation as is presented.
- Continue reviewing the draft text and send necessary corrections to IPO before 10 April, using the format that IPO has provided.
- Provide additional information if it is substantial and critical by 10 April for inclusion in the Compilation.
- Submit the final draft of Compilation with layout design to the IRDR SC Chair and to IRDR Co-sponsors and Host for approval.
- Launch the Compilation at the 2021 IRDR Conference

- ❖ This Compilation is made thanks to the collective contributions from all members of IRDR community.
- ❖ With your support, we should be able to finalize it in April and make it ready for launching at the IRDR Conference in June.

Thank you