IRDR
Integrated Research on Disaster Risk

Integrated Disaster Risk: From Research to Practice

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ICSU
International Council for Science

ISDR
International Strategy for Disaster Reduction

ISSC
international social science council

Issues

- **Globalization**
- **Population growth**
- **Widespread poverty**
- **Changing climate**

- **Urban areas**
  - **Complex infrastructure**
  - **Concentration and centralization of economic and political functions**
  - **Social segregation and**
  - **Complex spatial and functional inter-relationships**

Key question:

Why, despite advances in the natural and social science of hazards and disasters, do losses continue to increase?

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Wind speed

Religion

Wave a

Ethnicity

Risk Reduction

rainfal

Age

Ground motion

GENDER

Partners

- National and international science institutions
- National and international development assistance agencies and funding bodies
- National Committees

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Co-Sponsors

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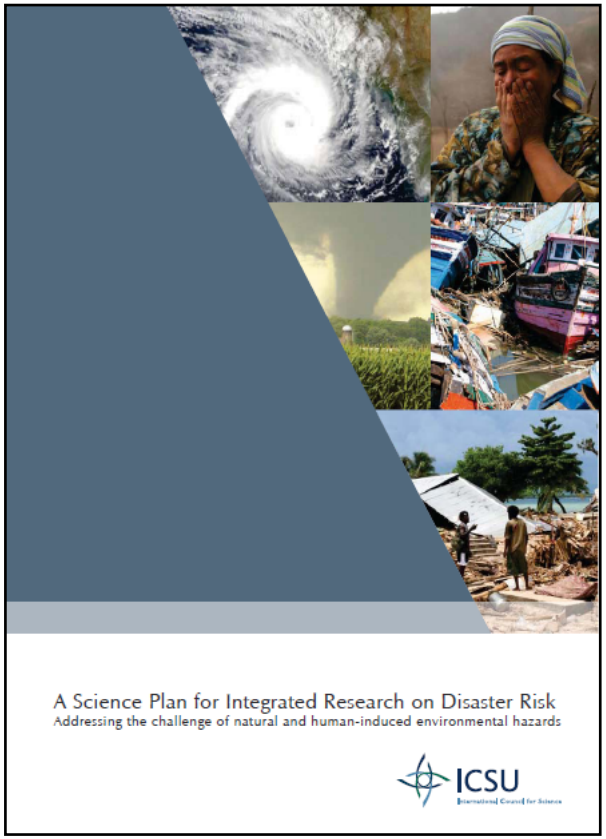
The Science Plan

Addressing the challenge of natural and human-induced environmental hazards

An ***integrated approach*** to research on disaster risk through: an international, multidisciplinary (natural, health, engineering and social sciences, including socio-economic analysis) collaborative research programme.



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IRDR Science Plan at: http://www.irdrinternational.org/

Scope of IRDR

- Geophysical and hydro-meteorological trigger events
- Earthquakes – tsunamis – volcanoes – floods – storms (hurricanes, cyclones, typhoons) – heat waves – droughts – wildfires – landslides – coastal erosion – climate change
- Space weather and impact by near-Earth objects
- Effects of human activities on creating or enhancing disasters, including land-use practices

NOT technological disasters, warfare

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Objective 1: Characterization of hazard, vulnerability and risk

1.1: Identifying hazards and vulnerabilities leading to risks

1.2: Forecasting hazards and assessing risks

1.3: Dynamic modelling of risk

HFA-2. Identify, assess and monitor disaster risks and enhance early warning

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Objective 2: Effective Decision-Making in Complex and Changing Risk Contexts

2.1: Identifying relevant decision-making systems and their interactions

2.2: Understanding decision-making in the context of environmental hazards

2.3: Improving the quality of decision-making practice

HFA-1 DRR-national priority.

HFA-5 Strengthen disaster preparedness

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Objective 3: Reducing Risk and Curbing Losses Through Knowledge-Based Actions

3.1: Vulnerability assessments

3.2: Effective approaches to risk reduction

HFA-3 knowledge - culture of safety and resilience

HFA-4 Reduce the underlying risk factors.

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Cross Cutting Themes

- Capacity building
- Case studies and demonstration projects
- Assessment, data management and monitoring



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Forensic Disaster Investigations (FORIN)

- In depth investigations into complex and underlying causes of growing disaster loss
- Fundamental cause of disasters
- Trace out and assign causal explanation of losses
- Intervening conditions that increased or reduce losses

- Series of case studies
- Common template and methodology

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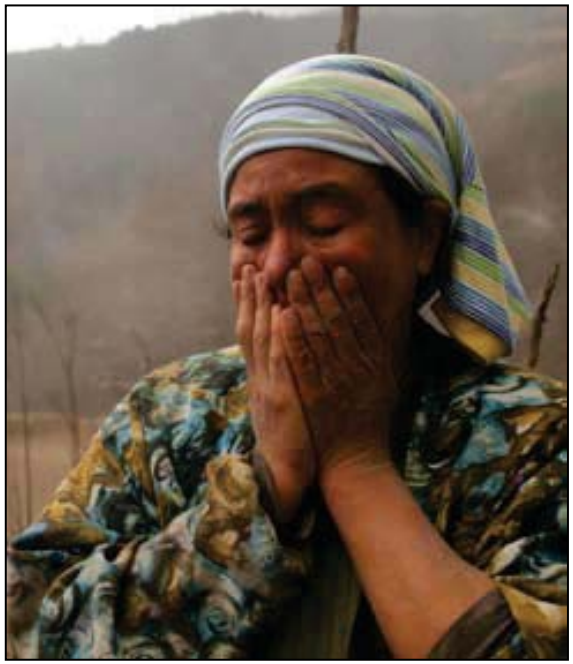
Risk Interpretation and Action

- *Interpretation of risk* - how actors attempt to make sense of experience and information from various sources as a basis for decision.
- *What do people (especially those at risk) think is likely to happen?*
- *What will they do about it?*
- And what will they do about it?
- Estimation of the likelihood, magnitude of event & physical infrastructure



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Disaster Loss Data Project

... need for more systematic and reliable information on such events. ... generate new information and data and to leave a legacy of coordinated and integrated global data and information sets across hazards and disciplines, with unprecedented degrees of access.

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Disaster Assessment Report

Integrated research assessment report similar to the “Disasters by Design” concept and similar in style to the IPCC.

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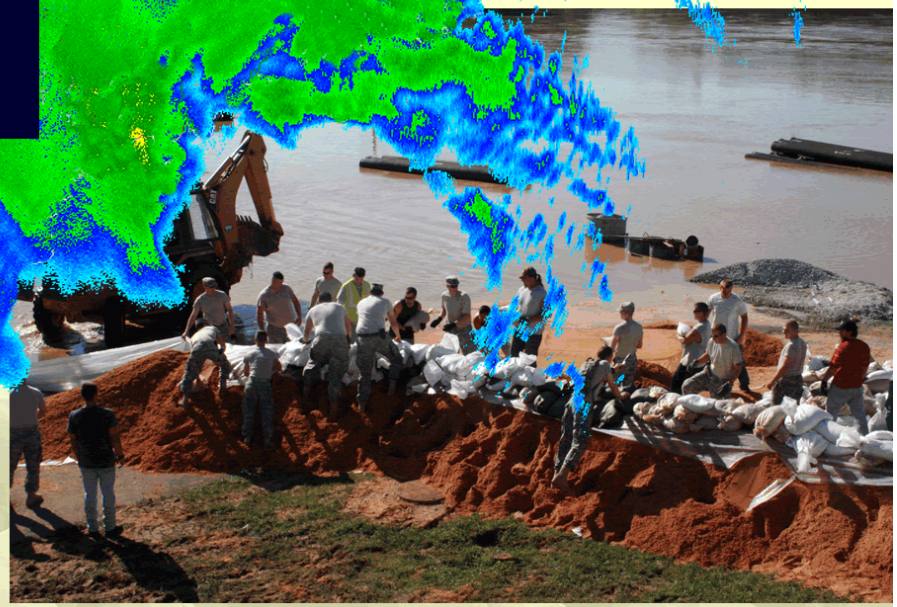
SAVE THE DATE

IRDR Conference 2011

Oct. 31 - Nov. 2, Beijing

www.irdrinternational.org/conference2011



Why, despite advances in the natural and social science of hazards and disasters, do losses continue to increase?

To what extent is the world-wide growth in disaster losses a symptom and indicator of unsustainable development?

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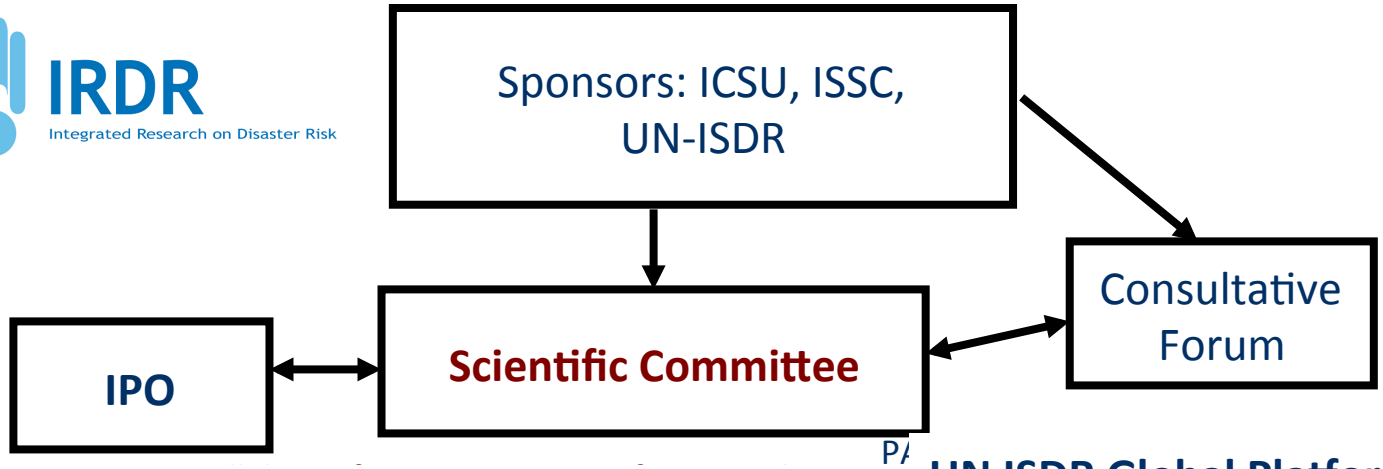
Disaster Risk: Integrating Science & Practice



Dr. Jane E. Rovins, Executive Director
Lang Lang, Administrative Officer
Anna Rudashko, Communications
Vacant, Science Officer

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Located at CEODE, CAS, Beijing, China

civil engineering, landslide mitigation

CUTTER, Susan, University of South Carolina, USA – hazards & vulnerability

EISER, Richard, University of Sheffield, UK – psychology, perception of risk

JOHNSTON, David, Massey University, New Zealand – earth sciences, disaster management

LAVELL, Allan, FLACSO, Costa Rica – social and developmental aspects of risk and disasters

McBEAN, Gordon, Inst. for Catastrophic Loss Reduction, University of Western Ontario, Canada – CHAIR

UN ISDR Global Platform
Geneva, June 2011 (2013, 2015, …)

Pacific Science Congress - Kuala Lumpur, June 2011

ICSU GA, Rome, September, 2011

IRDR Conference
Beijing , October /November 2011

Planet Under Pressure
London, March 2012

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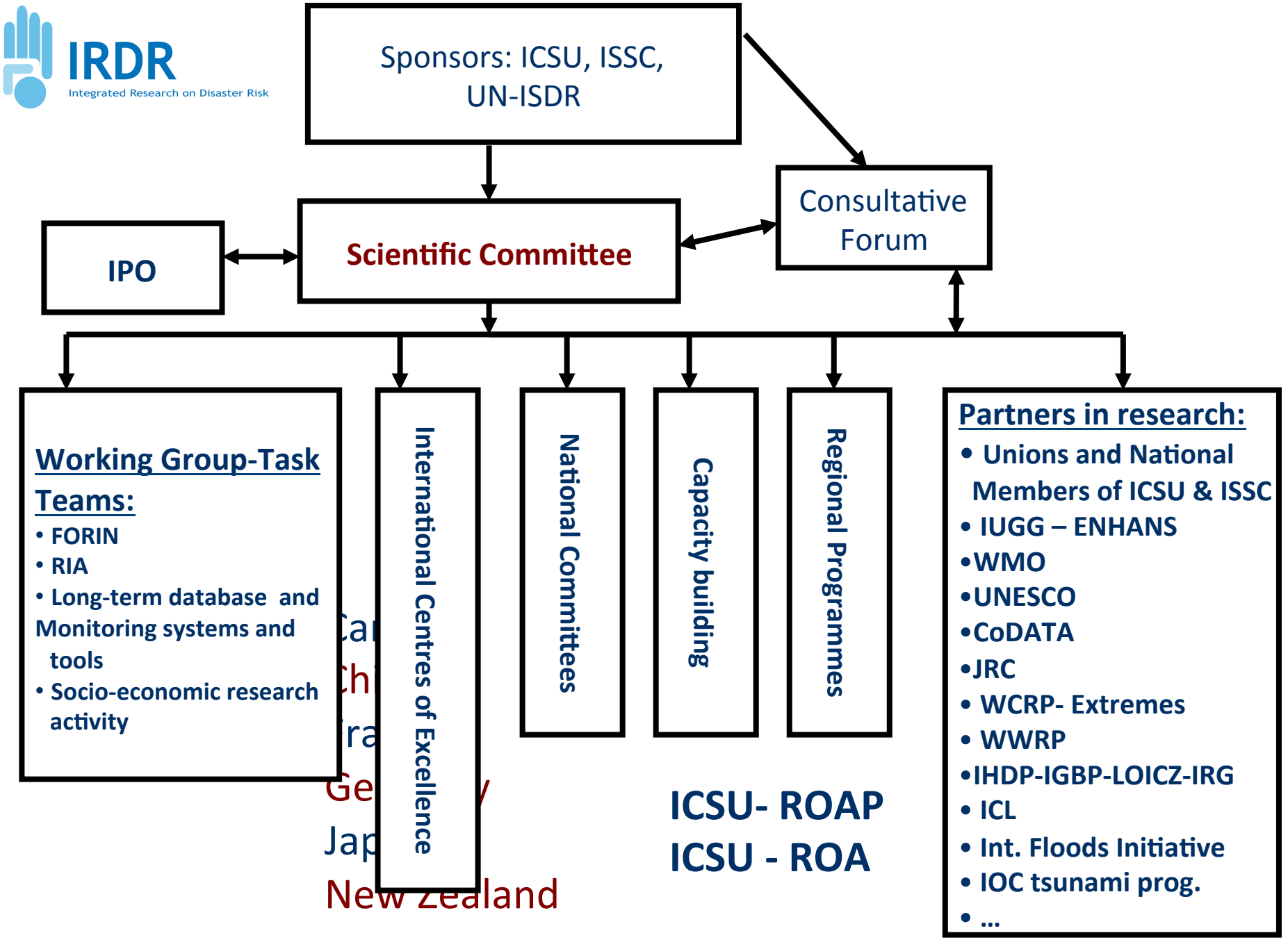
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Sponsors: ICSU, ISSC, UN-ISDR
IPO
Scientific Committee
Consultative Forum
Working Group-Task Teams:
• FORIN
• RIA
• Long-term database and Monitoring systems and tools
• Socio-economic research activity
International Centres of Excellence
National Committees
Capacity building
Regional Programmes
Partners in research:
• Unions and National Members of ICSU & ISSC
• IUGG – ENHANS
•WMO
•UNESCO
•CoDATA
•JRC
• WCRP- Extremes
• WWRP
•IHDP-IGBP-LOICZ-IRG
• ICL
• Int. Floods Initiative
• IOC tsunami prog.
• …
ICSU- ROAP
ICSU - ROA

IRDR Legacy

- An enhanced capacity around the world to address hazards and make informed decisions on actions to reduce their impacts.
- Societies to shift focus from response-recovery towards prevention-mitigation, building resilience and reducing risks, learning from experience and avoiding past mistakes.

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Thank you

www.irdrinternational.org

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