

# Science and DRR in Asia

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**IRDR**

Integrated Research on Disaster Risk

# Background

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

***How do we address the lack of sustainability in current disaster practices?***



# IRDR 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.

Capacity Building

Case Studies & Demonstration Projects

Assessment, Data Management & Monitoring

# Research Objective #1

- \* Characterization of hazard, vulnerability and risk
  - \* Identifying hazards and vulnerabilities leading to risks
  - \* Forecasting hazards and assessing risks
  - \* Dynamic modelling of risk



# Research Objective #2

- \* Effective decision-making in complex and changing risk context
  - \* Identifying relevant decision-making systems and their interactions
  - \* Understanding decision making in the context of environmental hazards; and
  - \* Improving the quality of decision-making practice.

# Research Objective #3

- \* Reducing risk and curbing losses through knowledge-based actions
  - \* Vulnerability assessments
  - \* Effective approaches to risk reduction



# Activities

- \* Improve scientific knowledge and integrated research
- \* Foster networking and collaboration among domestic, regional and international disaster risk reduction science and technology activities
- \* Enhance the integration of science in disaster risk reduction planning, policies and programmes
- \* Engage in the discussions for the post-2015 “HFA” and MDGs
- \* Contribute to the national/regional discussions for other relevant global negotiations (Future Earth, climate change adaptation, etc.).
- \* Provide scientific advice to policy-makers

# Partners

- National & international science institutions
- National & international development assistance agencies and funding bodies
- Other research organizations
- ICSU Unions
- SSC Unions
- Regional Offices
- UN Organizations
- IRDR National Committees
- IRDR International Centres of Excellence

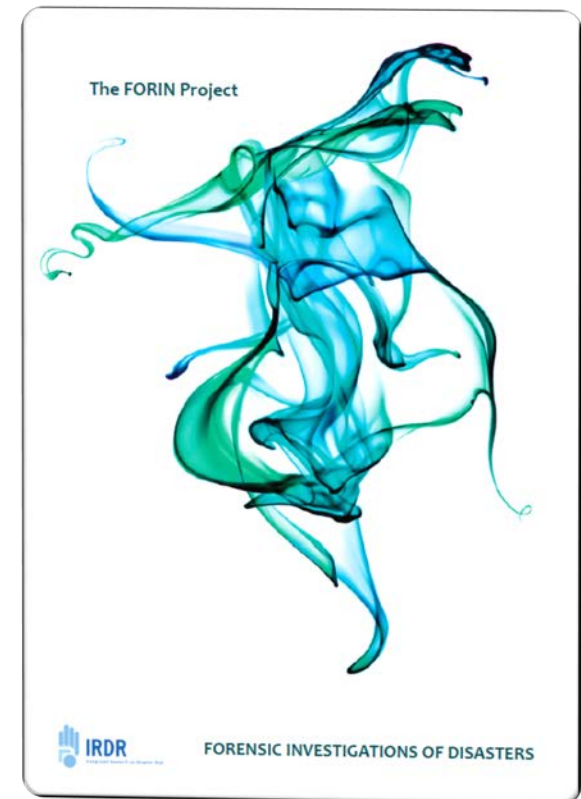


# IAP Science, Academia, and Research Stakeholder Group

- \* In partnership with the countries of Asia and the Pacific, UNISDR, NGOs, and others
- \* Supporting the Asian Ministerial Conference on Disaster Risk Reduction and Declaration
- \* Annex 10 - Research, integration, global standards, awareness, education, increase funding
- \* 18 specific deliverables
- \* Community of Practice established

# Forensic Investigations of Disasters (FORIN)

- \* Common template & methodology
- \* Trace out and assign causal explanation of losses and intervening conditions that increased or reduce losses
- \* 4 completed – Japan
- \* 15+ underway – Algeria, CEDIM (Germany), China, El Salvador, EU JRC, Haiti, Honduras, Japan, Pakistan, Philippines, Thailand, Taipei, volcanoes
- \* Community of Practice, workshops



# Disaster Loss Data WG

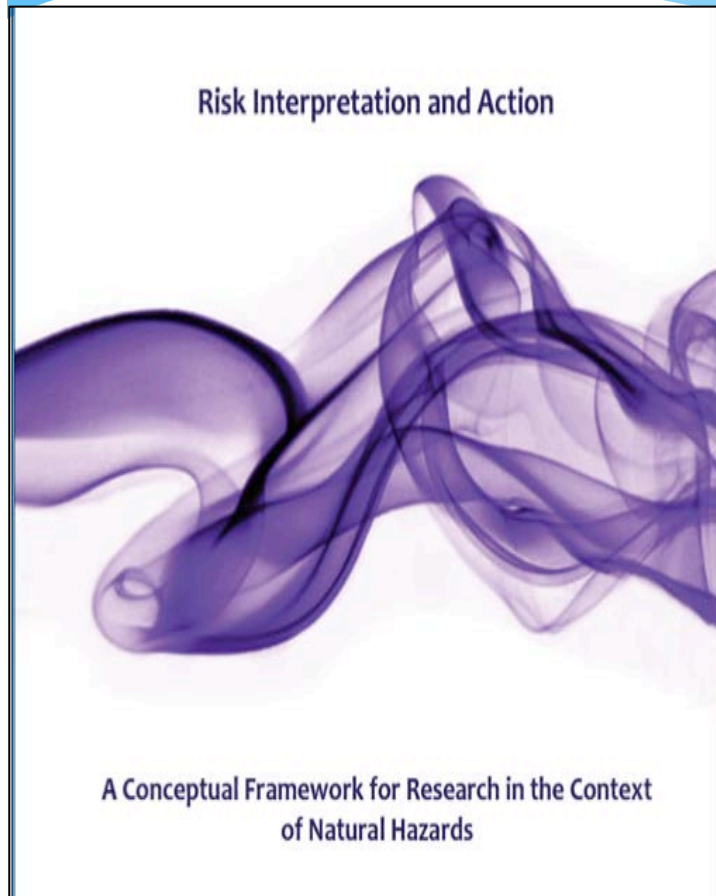
- \* Identify what data and quality are needed to improve integrated disaster data management; Educate users
- \* Increase downscaling of loss data to sub-national geographies for policy makers
- \* Common peril terminology and hazard identification
- \* Munich Re; NOAA NCDC; SHELDUS; Swiss Re
- \* ADRC, CoDATA, CRED, EU JRC, GRIP, ICHARM, UNDP, UNISDR, WDS
- \* Federal Ministry of Agriculture Forestry, Environment and Water Management (Austria); National S&T Center for Disaster Reduction (Taipei)

# Assessment of Integrated Research on Disaster Risk (AIRDR)

- \* First systematic and critical global assessment of published research on disaster risk
- \* Provide a baseline
- \* Use to identify and support longer-term science agenda
- \* Provide scientific evidentiary basis in support of policy and practice
- \* Promotion of an Intergovernmental Panel



# Risk Interpretation & Action (RIA)



- \* Estimation of the likelihood, magnitude of event and vulnerability of physical infrastructure
- \* Social and behavioural factors leading to greater or lesser risk including decision-making
- \* Article in IJDRR; UK Workshop
- \* ISSC Fellows Program (ICoE Taipei & NZ Partnership)

# WWRP/IRDR Societal and Economic Research and Applications (SERA)

- \* Joint WWRP (WMO) and IRDR project
- \* To advance the science of the social and economic applications of weather-related information and services
- \* Development, review and promotion of societal and economic-related demonstration projects focused on high-impact weather and information

# National Committees & ICoE

- \* Canada
- \* China
- \* France
- \* Germany
- \* Japan
- \* New Zealand
- \* Others Welcome!!
- \* Taipei ICoE
- \* Vulnerability & Resilience Metrics (USA)
- \* Community Resilience (NZ)



INTEGRATED DISASTER RISK SCIENCE:  
A TOOL FOR SUSTAINABILITY

# IRDR CONFERENCE 2014

BEIJING, CHINA

JUNE 2014

SUN	MON	TUE	WED	THU	FRI	SAT
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

SAVE  
THE DATE



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ICSU



ISSC



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RADI





**Thank you**  
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