

Tony Liu, 10/31/2013

**PROPOSAL SUBMITTED TO IRDR SCIENCE COMMITTEE
FOR CONSIDERATION FOR ESTABLISHING A NEW IRDR PROJECT**

TENTATIVE TITLE: DISASTER RISK REDUCTION AND LOSS MITIGATION (RILM)

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BACKGROUND AND JUSTIFICATION

The mission of IRDR is to develop trans-disciplinary, multi-sectorial alliances for in-depth, practical disaster risk reduction research studies and the implementation of effective evidence-based disaster risk policies and practices [**IRDR Strategic Plan, 2013-2017**]. The main IRDR research objectives, each with sub-objectives, are:

1. Characterization of hazards, vulnerability, and risk
 - Identifying hazards and vulnerability leading to risk
 - Forecasting hazards and assessing risks
 - Dynamic modeling of risk
2. Understanding decision-making in complex and changing risk contexts
 - Identifying relevant decision-making systems and their interactions
 - Understanding decision-making in the context of environmental hazards
 - Improving the quality of decision-making practice
3. Reducing risk and curbing losses through knowledge-based actions
 - Vulnerability assessments
 - Effective approaches to risk reduction

To support the IRDR mission and IRDR research objectives, the Science Committee (SC) established the following four ad hoc projects

- Assessment of Integrated Research on Disaster Risk (AIRDR)
- Disaster Loss Data (DATA)
- Forensic Investigations of Disasters (FORIN)
- Risk Interpretation and Action (RIA)

The AIRDR project undertakes systematic and critical global assessment of research on disaster risk. The DATA project studies issues related to the collection, storage,

and dissemination of disaster loss data. The FORIN project develops a framework to guide forensic investigations of disasters. The RIA project focuses on the questions of how people, both decision-makers and ordinary citizens, make decisions in the face of risk.

These projects, except perhaps for RIA, address mainly on the post-disaster events and they focus primarily on two of the three main IRDR research objectives, i.e., Objectives 1 and 2. The much-needed research on reducing risk and curbing losses through knowledge-based actions [**IRDR Research Objective 3**] has not been fully addressed by the existing projects. To support IRDR mission and IRDR Research Objective 3, a new IRDR project, **Disaster Risk Reduction and Loss Mitigation**, is proposed. **This proposed IRDR project aims to undertake integrated research to identify and develop practical and effective approaches to reduce risk and mitigate disaster losses through engineering and socio-economic sciences.**

PROPOSED RESEARCH ACTIVITIES

The proposed research activities of this proposed new IRDR project may include, but not be limited to

- **Develop new knowledge for reducing vulnerabilities and disaster risk.**
 - Identify vulnerabilities and disaster risk by integrating the outputs of the existing working groups
 - Develop framework to guide in preparation of hazard maps and land-use policies to prevent or discourage the occupation of high-hazard areas
 - Improve forecasting and early-warning capabilities
- **Develop structural and non-structural approaches to reduce disaster losses.**
 - Promote the best engineering standards and codes for infrastructure through international cooperation
 - Develop guidelines for preparing disaster preparedness and emergency response plans
 - Study the use of insurance and other financial mechanisms to reduce disaster losses
- **Case studies of recent disasters**
 - Include vulnerability and risk assessments and the analysis of effective (and ineffective) approaches to reduce disaster losses
- **Other research activities.**

PROPOSED INITIAL PLAN AND ACTION ITEMS

1. Convene a “kick off” meeting of interested SC members to develop a draft working paper defining the objectives and initial work plan of the project.
2. Submit the draft working paper and initial work plan to SC with copy to IPO for review and comments
3. Incorporate SC comments and finalize the working paper and work plan
4. SC approves the establishment of the new IRDR project and its work plan
5. SC appoints Chair, Co-chair, and members of the new IRDR project, and
6. Conduct first IRDR project meeting and identify the first project study (e.g., Case studies).