

Strategic Plan for the IRDR Programme (draft) (2012-2016)

Background

The International Council for Science (ICSU), the International Social Science Council (ISSC), and the United Nations International Strategy for Disaster Reduction (UNISDR) have created a new, international programme – **Integrated Research on Disaster Risk (IRDR)** – that seeks to address the challenges posed by natural and human-induced environmental hazards. The complexity of the task is such that it requires nothing less than the full integration of the natural, social, health, and engineering sciences. This, coupled with socio-economic analysis, understanding the role of communications, and understanding public and political response in risk reduction, takes IRDR beyond approaches that have traditionally been undertaken.

Mission and Objectives of the IRDR Programme

Mission: To develop trans-disciplinary, multi-sectoral alliances at in-depth, practical disaster risk reduction research studies, with a view to provide best possible advice for the implementation of the effective evidence-based disaster reduction policies and practices.

The key research objectives of the IRDR Programme are:

- (1) Characterization of hazards, vulnerability and risk
- (2) Understanding decision-making in complex and changing risk contexts
- (3) Reducing risk and curbing losses through knowledge-based actions

Attainment of these three research objectives through successful projects will lead to a better understanding of hazards, vulnerability and risk and an enhanced capacity to model and project risk into the future; to the understanding of the decision-making choices that lead to risk and how they may be influenced; and how this knowledge can better lead to disaster risk reduction by relevant sectors and stakeholders involved.

To support these objectives IRDR will propose and promote the work with partners, capacity building, development of case studies and demonstration projects; and assessment, data management and monitoring of hazards, risks and disasters.

Goals

The goals listed below are the principal themes and actions proposed for the 5-year IRDR Strategic Plan (2012-2016). The successful implementation of those actions will depend on collaboration, cooperation and partnership with other organizations, and support to the implementation of the IRDR Science Plan.

Goal 1: Networking and Network Building

Goal 2: Characterization of Hazards, Vulnerability and Risk

Goal 3: Understanding Decision-Making in Complex and Changing Risk Contexts, Risk Governance and Institutional Development

Goal 4: Reducing Risk and Curbing Losses through Knowledge-Based Actions

Goal 5: Promotion of Integrated and Applied Research, Advocacy and Awareness Raising

Goal 6: Research Support

Goal 1: Networking and Network Building

- 1.1** Implementation of the IRDR Programme within the Co-Sponsors framework for research on global sustainability
- 1.2** Development and strengthening and collaboration of IRDR network at global, regional and national levels
- 1.3** Establishment of IRDR Regional and National Committees
Current National Committees: Canada, China, France, Germany, Japan, New Zealand
- 1.4** Establishment of International Centres of Excellence (ICoE)
- 1.5** Support of Scientific Committee (SC) members and their bi-annual meetings, including the recruitment of new SC members (*The term of the SC member is 3 years and renewable once*)

1.6 IRDR International Conference on a biennial basis

Goal	Timeline	Activity	Budget	Responsible Party
1.1	2012-2016	Ensure that the implementation of the IRDR Programme is well integrated with the main programmes of co-sponsors (ICSU, ISSC, UNISDR), both to benefit from their contribution and leverage their support to advance IRDR objectives		IPO and SC
1.2	2012-2016	<ul style="list-style-type: none"> - Identify those organizations and programmes which share common interests with IRDR, or have programme/initiatives with the similar objectives as IRDR - Study, discuss, and explore potential cooperative areas - Seek to establish formal cooperation through Memorandum of Understanding (MOU) or other agreements as needed - Actively implement MOUs and agreements - Jointly develop plans and conduct relevant activities contributing to IRDR objectives - Integrate and implement Co-Sponsor's science plans into IRDR Programme and ensure that co-sponsors programmes include clear DRR objectives in coordination with IRDR - Improve connections/networks between IRDR and existing international, inter-disciplinary disaster risk reduction research networks, and also increase links and networking between existing disciplinary-specific research networks, to foster integrated multi-disciplinary research projects - Achieve and promote the meaningful participation of community and interest groups representing all sectors of the community at all stages of disaster risk reduction research programs and policy making - Build on the work of, and linkages between, national and regional platforms for disaster risk reduction, strengthening in particular, multi-stakeholder collaboration in research - - Build on, and bring into higher level networks, other emerging international policy and decision-making disaster risk reduction initiatives, such as the alliance of parliamentarians working on disaster risk reduction, local governments involved in the "Making Cities Resilient Campaign" - the global network of civil society organizations for DRR (GNDR), and associated disaster risk reduction networks - Enhanced and focused interaction between scientists, politicians and policy-makers, by introducing as project's input the search of success 		IPO and SC

		<p>by political actors</p> <ul style="list-style-type: none"> - Contribution to GAR 2013/2015, as the official reviewers (distribute work among members) - Participation at Global Platform for Disaster Risk Reduction 2013 and beyond - Contribution to <i>Towards a Post-2015 Framework for Disaster Risk Reduction</i> paper and the process (Note: not to duplicate S. Cutters and A. Lavells contribution) - Collaboration with ISDR Scientific and Technical Committee as close as possible - Reference to Belmont strategy and fundraising (main potential donors from: China, Japan, Germany, UK and USA) 		
1.3	2012-2016	<ul style="list-style-type: none"> - Finalize Terms of Reference (ToR) of IRDR Regional and National Committees, elaborate the objectives, missions, mandates, tasks, requirements, as well as premises of being IRDR Regional and National Committees - Formulate standard procedures of establishing IRDR Regional and National Committees - Publicize the announcement of developing IRDR Regional and National Committees - Call for proposals of applying for the establishment of IRDR Regional and National Committees - Establish, at least, 2 IRDR Regional and National Committees per year - Assist IRDR Regional and National Committees to implement IRDR Science Plan within their context - Coordinate with new and existing IRDR Regional and National Committees to promote IRDR and its associated activities - Encourage and promote IRDR Regional and National Committees to serve as focal point to promote IRDR-related research initiatives of host countries, and to enhance the links between national and international disaster risk research programmes and activities - Involvement of the individual SC members in their regions and countries - Build links with other ICSU NC and ISDR National Platform and their regional programmes 		IPO and SC members, particularly in their own countries and regions
1.4		<ul style="list-style-type: none"> - Finalize the ToR of IRDR ICoE, elaborate the objectives, missions, mandates, tasks, requirements, as well as premises of being IRDR ICoE - Formulate standard procedures of establishing IRDR ICoE - Publicize the announcement of developing IRDR ICoE - Establish, at least, 1 ICoE per year <i>(if other organizations show interest in supporting</i> 		

		<p><i>and cooperating with IRDR then there's a possibility to establish 2 or more ICoE per year, the main goal is for ICoE to be functional)</i></p> <ul style="list-style-type: none"> - Call for proposals of applying for the establishment of IRDR ICoE - Assist IRDR ICoE to implement IRDR Science Plan within their context - Coordinate with new and existing IRDR ICoE to promote IRDR and its associated activities 		
1.5	<p>annual as needed</p> <p>SC meeting 2/year</p>	<ul style="list-style-type: none"> - Conduct call for nominations - Coordinate the SC nominations - Conduct SC meeting(s) to be held twice a year 		
1.6	<p>every 2 years</p>	<p>IRDR Conference to be held every two years</p> <ul style="list-style-type: none"> - Additional options are to organize joint or collaborative conference with the key partners' conference (i.e. ISDR Global platform for DRR; Post-Hyogo Conference; GRF/IDRC next in 2013 and 2015) 		

Goal 2: Characterization of Hazards, Vulnerability and Risk

Research on Forensic Investigations of Disasters (FORIN)

Objectives: The FORIN investigations have multiple objectives driven by the common hypothesis that neither the past nor the current, local, national and global programmes and activities are being guided or supported by a sufficiently strong, in-depth and profound knowledge about environmental hazards and disasters and their underlying root causes. The FORIN objectives can be split into: policy objectives, management objectives, scientific research objectives, development objectives and disaster risk reduction objectives.

Timeline	Activity	Budget	Responsible Party
12-19 March 2012	Senior Science Work plan meeting at ICoE, Taipei, China	ICoE Funding \$196,350	

<p>2012-2016</p>	<p>Integrated Research Projects (1A, 1B)</p> <p>- 1A. Core Sponsored Case Studies</p> <p>At the centre of the FORIN Project it is proposed to develop a small number of major or core projects to examine a selection of recent disasters through the FORIN lens. Candidates could include such recent (last 10 years) events as earthquakes in Haiti, Chile and Christchurch New Zealand, tropical cyclones (Katrina), floods in Thailand and Pakistan, and also the tsunami and flooding its nuclear consequences in North East Japan (Fukushima), and others.</p> <p>Each project would be conducted over a period of approximately three years and would require an overall project director and an interdisciplinary and integrated team of research staff, some of whom might be supported on fellowships (see 2B below). It would be advantageous if the director and research team could be based at a research institution preferably with a reputation and recognized capacity for research in disasters. The selection of core projects would be made by donor or sponsoring organizations working in collaboration with the FORIN project and IRDR, as well as a home institution and country. These core projects would form the centrepiece of the FORIN project, they would not be established at the outset but would be preceded by a number of preparatory activities.</p> <p>- 1B. Contributed Case Studies</p> <p>A number of research individuals and groups have expressed their interest in pursuing the application of the FORIN approach. It is therefore proposed that such researchers be collectively organized into groups providing Contributed Case Studies. Such case studies would in some instances precede the core projects and produce some further input into their design. It is anticipated that much of the cost of the contributed case studies would come from their own sponsors.</p>	<p>\$250,000/each</p>	
<p>2012-2016</p>	<p>- 2A. Orienting, Training and Development Workshops (Advanced Institutes)</p> <p>In order to engage more of the disaster research community (from many disciplines and specialities) it would be helpful to organize a series of workshops at which the elements of the FORIN approach could be presented and debated and further elaborated. Initially such workshops would be required to orient research groups to the central concepts of FORIN including the essential notion of “integrated” studies. One such workshop to be held in Taipei (March 2012) is now in preparation. There should be at least one such workshop associated with each of the Core Case Studies and initially with the Contributed Case Studies as well. One initiating or “launch” workshop will be held once the preparatory steps have been taken.</p> <p>- 2B. Fellowship Programme</p>		

	<p>To support the research projects and their staff and to help to contribute to the costs of workshops a fellowship programme will be established. The number and value of individual fellowships will depend upon the rate of development of the FORIN project and initial funding.</p> <p>- 2C. Research Workshops</p> <p>Once the workshops for Core and Contributed Case Studies are completed it is important that they be followed up with meetings and reports to monitor progress and ensure that the integrated nature of the FORIN approach is being effectively followed. Such mechanisms are required both within and between (across) projects.</p> <p>The number and cost of individual workshops remains to be worked out, and will depend upon the timing of the Case Studies.</p>		
2012-2016	<p>- 3A. Journal articles</p> <p>One important product of the FORIN project will be a series of articles in refereed journals, reporting on results, and the development of theory and methodology. One such proposed article under consideration is a refinement and elaboration of FORIN Working Paper No. 1. (Authors to be determined)</p> <p>- 3B. Working papers</p> <p>In addition to journal articles the FORIN project should sponsor a series of Working Papers that report on work in progress and to facilitate the exchange of ideas and methods. These could be posted on the IRDR website as in the case of Working Paper No. 1.</p> <p>- 3C. Book length reports</p> <p>It is anticipated that each of the Core Case Studies and some of the Contributed Case Studies would lead to the production of book length reports. These might be stand-alone reports or managed as part of a FORIN series. One publisher has expressed interest in such a series. (Discussions in progress led by Tony Oliver Smith). The FORIN Working Paper No. 1 itself has the potential to be elaborated into a book. This would involve the preparation of expanded text on specific research methodologies that are described very briefly in WP No. 1. Such a volume could be designed to serve as a guide for subsequent Case Studies adopting the FORIN approach. (Authors and/or editors are to be identified)</p>		
2012-2016	<p>- 4. Synthesis and Publication of Results and International Conference</p> <p>At the close of the approximately five year period of this project it is anticipated that a synthesis volume would be produced. This would include reports from specific projects and an overall synthesis aimed at both the policy and the scientific communities. It would carry a "Summary for Policy Makers" in the IPCC style. If this pattern were to be followed the SPM could become the centrepiece of an international</p>		

	conference perhaps attached to or associated with established international disaster platforms. An interim report could be presented at an expected conference in 2015 when it will be time for the renewal or revision of the Hyogo Framework.		
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Preliminary Schedule and Budget

Year 1	This is a “setting up” year. It requires more detailed budget preparation and a more detailed Work Plan. Year 1 would also require at least one workshop (see 2A above) and the establishment of a fellowship programme. Preliminary cost estimate \$150,000 .
Year 2	This would require a number of the activities listed and described above to be continued and strengthened and the case studies to be initiated. This process could begin at any time with Contributed Case Studies and with the Core Case Studies to follow. Preliminary estimate cost \$250,000 .
Year 3	At this stage the FORIN project would reach its peak level of activities with a worldwide distribution of Contributed and Core Case Studies underway, and a full range of fellowships, publications and workshops. Costs at this stage would depend heavily upon the number of Core Case Studies. Preliminary estimate cost \$500,000 .
Year 4	Year 4 would be the second year of full activities, and Core and Contributed Case Studies would be approaching completion with associated report writing and “outreach” and communications.
Year 5	It is projected that Year 5 would be the final year of the FORIN Project, and would be devoted to the synthesis of results, and publications and an international conferences and related communications. Costs at this stage would depend on the scale of these activities.
Total:	Total costs for the 5-year FORIN Project would be in the order of \$1,000,000.00 plus additional and shared and in-kind contributions.

(The conduct of at least 5 FORIN case studies with partners by 2015)

- 2.1 Identification of hazards and vulnerabilities leading to risk
- 2.2 Forecasting hazards and assessing risks
- 2.3 Dynamic modeling of risk

Goal	Timeline	Activity	Budget	Responsible Party
2.1	2012-2016			
2.2	2012-2016			
2.3	2012-2016			

Goal 3: Understanding Decision-Making in Complex and Changing Risk Contexts, Risk Governance and Institutional Development

Research on Risk Interpretation and Action (RIA)

Objectives: to study on how and why people’s interpretations of the risks of various natural hazards relate to their actual choices and behavior. The main point is focused on clarifying the key concepts and theoretical assumptions concerning the processes underlying interpretation of risk and decision-making under uncertainty so as to make these more accessible to a range of disciplines and to practitioners in the field of natural hazards and to promote better integration of behavioral sciences in disaster risk research especially in regard to decision making leading to RIA research projects.

Timeline	Activity	Budget	Responsible Party
12 months - ongoing	To facilitate the use of the RIA framework as a guide for research that can be both well-grounded theoretically and of practical relevance.		Eiser/Johnston
First months of 2012 (report by May 2012)	RIA WG to push a revised version of the report, in an international peer-reviewed journal or journals		Eiser/Johnston
June, July, August, 2012	To explore a wider range of contacts among researchers already engaged in relevant research. For those members of RIA WG to attend most major international conferences where there will be opportunities to disseminate the ideas contained in the paper and encourage more colleagues to become involved in the collaboration. Society for Risk Analysis – Europe (Zurich, June 2012); World Risk Congress (Sydney, July 2012); Global Risk Forum (Davos, August 2012).		Eiser/Johnston
14-18 October 2012 (tentative date)	2012 Work shop at ICoE, Taipei, China		

- 3.1 Identification of relevant decision-making systems and their Interactions
- 3.2 Understanding decision-making in the context of environmental hazards
- 3.3 Improving the quality of decision-making practice
- 3.4 Identification of potential decision-making systems application for DRR in governmental, business and civil society contexts (risk governance and institutional development)

Goal	Timeline	Activity	Budget	Responsible Party
3.1	2012-2016			
3.2	2012-2016			
3.3	2012-2016			
3.4	2012-2016			

Goal 4: Reducing Risk and Curbing Losses through Knowledge-Based Actions

Research on Disaster Data Loss (DATA)

Objectives: to identify what data and quality are needed to improve integrated disaster risk management; to bring together loss data stakeholders and develop and utilize synergies; to develop recognized standards, minimize uncertainty; to educate users regarding data interpretation and data biases; to ensure increased downscaling of loss data to sub-national geographical levels for policy-makers; to define “losses” and create a methodology for assessing it.

Timeline	Activity	Budget	Responsible Party
2012-2016	Development of global, open source disaster risk reduction information and data; a concise analysis of existing and		

	applied methodologies of disaster data collection and impact assessment leading to standardized and transparent data collaboration		
26-29 March, 2012	Planet under Pressure, London: Presentation of IRDR-DATA at ICSU side event		Cutter/Wirtz
May 2012	Kick-off meeting of working group (2-3 days). Possibly in Vienna under the umbrella of the Austrian Ministry of Life. Goal: Team building, identifying strengths of members finalize and agree upon project plan, specifying concrete working plan according to overall project plan of DATA, including, time frame, milestones, and responsibilities. Identifying goals and objectives for students' workshop 2012		Cutter/Wirtz
June 4-6, 2012	UNCSD (Rio+20) - communication on web, participation of IRDR or DATA members		Cutter/Wirtz
July 2012	Meeting Wirtz and Cutter in Munich		Cutter/Wirtz
Aug/ Sept/ October 2012	Students workshop in Munich (ca. 20 students, and few Working Group members.) 2 days. Working on max 2-3 topics according to project plan, in preparation of 2 nd DATA Working Group meeting in Taipei, China (March 2013)		Cutter/Wirtz
November 2012	IRDR SC Meeting in China. Report about progress of DATA. Side meeting with core team and those who are interested in. (To be discussed: 2 nd DATA-Working group meeting)		Cutter/Wirtz
March 2013	Taipei: DATA-Working Group Meeting (2-3 days). Presentation at ICoE, Taipei, China (NatCatSERVICE & Insurance and Working Group DATA)		Cutter/Wirtz

4.1 Vulnerability Assessments

4.2 Effective Approaches to Risk Reduction

Goal	Timeline	Activity	Budget	Responsible Party
4.1	2012-2016	Identify and work with international organizations to develop and implement global standard indicators and other measures of the effectiveness of disaster risk reduction at national and regional levels		
4.2	2012-2016			

Goal 5: Promotion of Integrated and Applied Research, Advocacy and Awareness Raising

Objective: to ensure disaster risk reduction research programs and policies are integrated across disciplines, and contribute to enhancing policy-making and capacity building for the effective reduction of disaster risk.

Goal	Timeline	Activity	Budget	Responsible Party
5.1	2012-2016	Actively engage and support scientific and technical communities to inform decision-making, and ensure policy is informed by both science and lessons learned		IPO and SC
5.2	2012-2016	Ensure research approaches have practical applications, are consistent with end user needs, actively include end-users, and are sensitive to gender and cultural differences		IPO, SC and WG

5.3	2012-2016	Identify and prepare for emerging risks through scientifically informed multi-hazard risk assessments and scenario development		IPO and SC
5.4	2012-2016	Encourage cross-sectoral cooperation that makes best use of available information and technology		IPO and SC
5.5	2012-2016	Promote increased investment in integrated disaster risk reduction research, and develop policy guidelines for integrating disaster risk reduction into development		IPO and SC
5.6	2012-2016	Promote the adoption of standard hazard and vulnerability risk profiles for use by local, national, regional and global stakeholders, with a view to integrating disaster risk reduction in development and sectoral planning		IPO and SC
5.7	2012-2016	Improve understanding of the necessity for integrated approaches to disaster risk reduction: - with local, national, regional and global awareness-raising programs, and also through training and advocacy across sectors; - raise awareness amongst decision makers at all levels to commit to and apply policies and especially financial and legal means for integrated disaster risk reduction initiatives		IPO and SC
5.8	2012-2016	Scale up advocacy with the wider public, mainly through the media and civil society organizations for the development of a culture of prevention and safety		IPO and SC

5.9 Assessment of Integrated Research on Disaster Risk (AIRDR)

Objectives: To provide a baseline of the current state of the science in integrated research on disaster risk to measure effectiveness of multiple programmes, use it to identify and support longer-term science agenda for the research community and funding entities, and to provide scientific evidentiary basis in support of policy and practice.

Pending submission by AIRDR Working Group (WG)

Timeline	Activity	Budget	Responsible Party
2012	Initial working group meeting	2011 UNISDR annual grant	Cutter/Lavell

Goal 6: Research Support

- 6.1 Development of IRDR Researchers and Research Institutions Database
- 6.2 Development of IRDR Events List/Calendar
- 6.3 Increase Funding (Objective: to leverage political commitment from existing international mechanisms to ensure that integrated disaster risk reduction research programs have access to priority funding from development as well as humanitarian, public and private funding sources.)
- 6.4 Programme Officers
- 6.5 Communication Outreach
- 6.6 Strengthen IRDR Management Documents
- 6.7 Finance
- 6.8 Office Operations

Goal	Timeline	Activity	Budget	Responsible Party
6.1	2012 (before 1 st SC meeting)	<ul style="list-style-type: none"> - Develop a proposal - Collect the database information - Construct the system - Formulate a detailed scheme of selecting researchers and institutions on disaster risks - Identify appropriate researchers for IRDR - Populate IRDR researchers database - Maintain the system 		IPO
6.2	2012 (before 1 st SC meeting)	<ul style="list-style-type: none"> - Develop a proposed procedure - Collect the events calendar information - Construct online calendar - Maintain monthly updates 		IPO
6.3		<ul style="list-style-type: none"> - Increase current spending on both national and regional risk reduction research programs by 15% by 2015, requiring that all such programs are clearly multi-disciplinary (integrating physical and social science approaches), and able to prove that they have also integrated end-user needs into the program - Promote an increase in disaster management and humanitarian organizations funding to promote integrated DRR research, and work closely with development funding agencies, both multilateral and bilateral, with a view to ensuring that DRR is fully integrated in development and sectoral strategies, plans, programmes and projects - Ensure that development funding sources follow-up the resourcing provided by disaster management and humanitarian funding agencies for DRR with the required integration of DRR in development sectoral funding 		IPO
6.4	2012 2012-2016	<ul style="list-style-type: none"> - Develop staffing plan for IPO <ul style="list-style-type: none"> • Identify working group coordinators (AIRDR, DATA, FORIN, RIA) - Implement staffing plan for IPO 		IPO
6.5	2012-2016	<ul style="list-style-type: none"> - Implement external communication plan (IRDR website updates, e-mail marketing, social media marketing, analytics, content marketing, SEM, multimedia, press releases, opinion editorials, features, print advertising, online advertising, brochures, posters, letters, leaflets, scientific reports, flyers, events/presentations, workshops, conferences) - Implement internal communication plan (conference calls, face-to-face meetings, workshops, case studies) 		IPO
6.6	2012-2016	<ul style="list-style-type: none"> - Strengthen IRDR management documents: SC minutes, ToR's for SC members, ICoE, Regional and National Committees, etc. - Strengthen external partnerships: MOU's, agreements with partners 		IPO

6.7	2012-2016	- Budgeting - Accounting - Review and report		IPO
6.8	2012-2016	- Staff Stimulation (events, staff training, field trips) - Supplies purchasing		IPO

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