



Report of the Ninth Meeting of the IRDR Scientific Committee (SC)

**Geneva, Switzerland
18-20 May 2013**

Contents

I. Organisation of Meeting and other Meeting Matters	2-3
▪ Date and Place of the Meeting	
▪ Documentation	
▪ Attendance	
▪ Adoption of the Agenda	
▪ Summary Report of the Eighth SC Meeting	
▪ Date and Place of 10 th SC Meeting	
II. Co-Sponsors' and Host Updates	3-9
▪ International Council for Science (ICSU)	
▪ International Social Science Council (ISSC)	
▪ United Nations International Strategy for Disaster Reduction (UNISDR)	
▪ Institute of Remote Sensing and Digital Earth (RADI)	
III. International Programme Office (IPO) Updates	9-11
▪ 2012 Annual Report	
▪ Strategic Plan (2013 – 2017)	
▪ Work Plan (2013 – 2017)	
▪ 2014 Conference	
▪ Executive Director's Report	
▪ Recruitment of New Executive Director	
IV. Funding Updates	11-14
▪ LANDSCAPE-LAC Project	
▪ Mathematics of Climate Change, Related Natural Hazards and Risks Workshop	
▪ MEOPAR Project	
▪ New Grant Opportunities	
▪ General Discussion on Funding for Projects	
V. Project, National Committee (NC) and International Centres of Excellence (ICoE) Updates	14-24
▪ Project Updates	
▪ National Committee (NC) Updates	
▪ International Centres of Excellence (ICoE) Updates	
▪ The Issue of Branding Projects with the IRDR Logo	
VI. IRDR's Regional Interactions	24-25
▪ ISDR Asia Partnership (IAP)	
▪ Establishment of the ICSU ROLAC Follow up Programme on Risk Management for the LAC Region	
▪ ICSU Regional Office for Africa (ICSU ROA)	
VII. Other Matters Discussed	25
Annexes	26-29
▪ Annex 1: List of Meeting Documents	
▪ Annex 2: Action Items from the Ninth SC Meeting	

I. Organisation of Meeting and other Meeting Matters

Date and Place of the Meeting

The ninth meeting of the Integrated Research on Disaster Risk (IRDR) Scientific Committee (SC) was held from 18 to 20 May 2013, in Geneva, Switzerland, in conjunction with the Fourth Session of the Global Platform for Disaster Reduction (GPDRR), 21 to 23 May.

Documentation

A list of background documents provided to Members is contained in annex 1.

Attendance

- **Members present:** David JOHNSTON (Chair), Sálvano BRICEÑO (Vice-Chair), Susan CUTTER (Vice-Chair), Irasema ALCÁNTARA-AYALA, Djillali BENOUAR, Ann BOSTROM, Omar Darío CARDONA, Ferruccio FERRIGNI, Shuaib LWASA, Anthony OLIVER-SMITH, Mark PELLING, Chamhuri SIWAR, Angelika WIRTZ and Sisi ZLATANOVA.
- **Apologies:** Kuniyoshi TAKEUCHI (Vice-Chair).
- **Ex officio:** Howard MOORE (ICSU), Gudmund HERNES (ISSC), Andrew MASKREY (UNISDR) and Jie LIU (representing Huadong Guo of RADI).
- **IRDR IPO:** Jane ROVINS and Kerry-Ann MORRIS.
- **Invited guests:** Ian BURTON (Co-chair FORIN), Allan LAVELL (Co-Chair AIRDR), Tony LIU (IRDR ICoE-Taipei) and Kenichi TSUKAHARA (IRDR Japan).

Adoption of the Agenda

The following revisions and additions were made to the agenda:

- **Day One – Saturday, 18 May:**
 - Discussion on the recruitment of a new Executive Director added.
 - Discussion on the date and place of the 10th SC meeting moved from day three to day one.
- **Day Two – Sunday, 19 May:**
 - Under IRDR ICoE, “ICoE USA” should read IRDR ICoE on Vulnerability and Resilience Metrics (ICoE VaRM).
 - “ICoE New Zealand” should read IRDR ICoE in Community Resilience (ICoE CR).
- **Day Three – Monday, 20 May:**
 - A proposal by LIU (IRDR ICoE-Taipei) for a new project added.
 - Discussion on the Sustainable Development Goals (SDGs) moved from day three to day two, after the RIA update.

Summary Report of the Eighth SC Meeting

Comments received on the summary report of the eighth meeting were included in the revised report (see Document 9/2.1). A majority of the action items from this meeting were completed while others, such as the issue of funding, were addressed in the Executive

Director's Report (see Document 9/3.3). There being no other issues, the summary report of the eighth meeting was approved without change.

Date and Place of the 10th SC Meeting

The Members agreed to hold the 10th SC meeting in Sanya, China from 11 to 15 November 2013. It was proposed to hold four small workshops related to each IRDR project, the day before the start of the meeting. LIU (RADI) suggested that IRDR China could arrange its annual meeting directly before or after the 10th SC meeting to encourage the participation of Chinese scientists in these proposed series of workshops.

II. Co-Sponsors' and Host Updates

International Council for Science (ICSU)

MOORE provided updates on:

- 1. Future Earth:** This 10-year initiative will take over and build on the successes of the existing global environmental change programmes: Diversitas, International Geosphere-Biosphere Programme (IGBP), International Human Dimensions Change Programme (IHDP), and World Climate Research Programme (WCRP). The WCRP will continue in its present form and the three other programmes will be merged to form the new Future Earth structure. Future Earth will announce its Scientific Committee (SC) soon. When asked, MOORE was not able to speak to its composition. It is expected that Future Earth will be operational by mid-2014.

It was decided not to formally include IRDR within Future Earth; however, the relevance of the IRDR programme to the initiative was recognised and will form part of Future Earth's suite of research activities. MOORE noted that Future Earth's broad programme structure will provide opportunities for proposing IRDR activities, thus gaining the attention of the funding organisations involved in its implementation.

- 2. ICSU's role in the United Nations (UN) Sustainable Development Goals (SDGs):** ICSU partnered with the World Federation of Engineering Organisations (WFEO) and ISSC to lobby on behalf of the science and technology community in the development of the SDGs. As part of that process ICSU, ISSC and the United Nations Department of Economic and Social Affairs (UN DESA) held an expert meeting in New York in March 2013, to discuss how best science can inform the SDG process, and for the scientific community to initiate a dialogue with policy makers. PELLING, who was also in attendance at that meeting, informed that the main output was a two-page brief presented to policy-makers. PELLING noted that it was still unclear how this will influence the SDG process going forward.
- 3. Meeting of ICSU's International Scientific Unions, April 2013:** ROVINS presented on the IRDR programme at this meeting, which also included a break-out session on disasters. A number of IRDR-specific decisions and recommendations resulted, including:

- IRDR to share information with the Unions on upcoming Risk Interpretation and Action (RIA) events, and the Unions in turn to share information with IRDR on their activities.
- ICSU to represent IRDR's interests at the governing bodies of relevant organisations and to link the IRDR National Committees (NCs) with the Unions' national and regional structures.
- IRDR to provide the Geo-Unions with an information package consisting of the Forensic Investigations of Disasters (FORIN) report and a two page summary about IRDR.

ROVINS noted that the Unions' increased interest in IRDR resulted from their perception that the programme was a purely social science initiative, and thus required greater involvement of the natural sciences. Since this meeting, the IPO has been in increased communication with several Scientific Unions, and has received invitations to speak about integrative science at their upcoming events. The IPO will contact SC Members concerning speaking at such selected events.

PELLING welcomed the opportunity for greater engagement with the Unions and queried the possibility of more interactive activities at their events, such as break-out sessions. ROVINS responded that this was possible, an example being the advanced seminar on FORIN conducted during the first IUGG GRC Conference on "Extreme Natural Hazards and Their Impacts" in December 2012 (see IRDR Annual Report 2012, Document 9/3.1, pg. 12). ROVINS suggested the inclusion of the RIA review article in the information package for the Unions. PELLING provided a counter-suggestion: a shorter article that provides a summary of the RIA project. This suggestion was accepted.

International Social Science Council (ISSC)

HERNES provided updates on:

1. **ISSC General Assembly:** This will be held in Montreal, Canada, from 9 to 11 October, 2013, and will involve the re-election of all members of the Executive Committee, except the President, who will not run for re-election.
2. **Second World Social Science Forum (WSSF):** This will be held in Montreal after the General Assembly, from 13 to 15 October, under the theme "Social Transformation and the Digital Age." JOHNSTON reported that RIA's proposal for a panel, "Decision-making in times of Uncertainty," was accepted, and he will chair the panel. He will contact the RIA working group members to finalise the panel's composition.
3. **World Social Science Report 2013:** The theme for the 2013 Report is "Changing Global Environments: Transformative Impact of Social Sciences." IRDR was contacted for a 500-word submission about FORIN and RIA projects, which was accepted and will be included in the Report as a break-out box about IRDR. The Report will be pre-launched at the WSSF, and the official launch will take place in November 2013, at the United Nations Educational, Scientific and Cultural Organization's (UNESCO) General Conference.

United Nations International Strategy for Disaster Reduction (UNISDR)

MASKREY provided updates on:

1. **Global Assessment Report on Disaster Risk Reduction (GAR) 2013:** GAR 2013 was launched on Wednesday, 15 May. The full English version has been published, minus the Executive Summary, which is a separate publication called the Pocket GAR 2013. Up to four SC members and the IPO provided comments on GAR 2013.
2. **UNISDR Global Platform for Disaster Risk Reduction (GPDRR) 2013:** GPDRR 2013 will be from Tuesday, 21 May to Thursday, 23 May. ROVINS invited those SC Members staying for the duration of the Global Platform, especially those sponsored by the IPO, to attend two events on Wednesday, 22 May, in which the IRDR will be participating:
 - IRDR's 15-minute presentation by ROVINS on the IGNITE Stage at 12:15 p.m.
 - Featured event, "Applying Science and Technology to Policy and Practice in DRR," at 3:00 p.m., involving JOHNSTON, who will give a five-minute presentation about IRDR.
3. **Development towards Hyogo Framework for Action 2 (HFA2):** During 2013, a number of informal consultations were held concerning the development of HFA2. A summary report of the results of these consultations will be released during the Global Platform on Tuesday, 21 May. After the Global Platform an expert group will be convened to prepare a first draft of HFA-2, which will feed into a set of regional platforms in mid-2014, involving regional governments and inter-governmental organisations. The product of the latter consultations will be subject to further formal government and inter-governmental negotiations leading up to the Third World Conference on Disaster Reduction (WCDR-3), which will be held in Sendai, Japan in March 2015. A fifth and possibly final session Global Platform will also be held in Sendai, two or three days prior to the WCDR-3.
4. **Global Assessment Report on Disaster Risk Reduction (GAR) 2015:** Instead of being theme-specific and in view of the HFA-2 negotiations, GAR 2015 will assess the past 10 years, examine the current situation, and explore the future challenges and opportunities. The goal is to have all the background data, modeling and research completed by June 2014, the final draft by the end of 2014, and published in time for the WCDR-3.

MASKREY and LAVELL provided an overview of the activities already undertaken in the development of GAR 2015.

- **Assessing the past 10 years:** To assess the past 10 years, the UNISDR's HFA Monitor will be tweaked in order to obtain a higher level overview under each of the HFA's priority areas of what occurred between 2005 and 2015. For example, what was a government's legislative status in 2005, and what's the status in 2015. Country consultations have already begun. Global overviews of the HFA's priority areas will complement this exercise. The HFA's 22 core indicators have been grouped under 10 or 12 core themes, and for each core theme an institution will be contacted to coordinate its global review.
- **Examining the current situation:** The first GAR 2015 scoping meeting was held at the CIMA Foundation, Savona, Italy in early March 2013, concerning the global risk model, which will be completed by mid-2014.
- **Exploring the future challenges and opportunities:** The second scoping meeting was held in San José, Costa Rica in April 2013, organised by the Facultad

Latinoamericana de Ciencias Sociales (FLACSO). This meeting discussed the theme for GAR 2015, which will focus on the future of disaster risk management (DRM). One of the major challenges being faced is that, although governments have reported increasing progress against the HFA, the global disaster loss databases reveals the opposite: losses and risks are increasing. The second scoping meeting brought together a group of 20 experts to brainstorm this issue, with each person asked to provide two pages of their views of future challenges and opportunities. An 18-page summary of the discussions was later produced, which will eventually become one-third of GAR 2015. LAVELL provided a summary of the findings within this document, which will be distributed to the SC at a later date. Based on this summary, the SC was asked to provide its ideas for the role that the IRDR could play in the further development of this paper for GAR 2015. JOHNSTON noted that IRDR's projects provided the basis for such a contribution and tasked the project members to provide such recommendations. These are listed below.

IRDR's Contribution to GAR 2015

1. Assessment of Integrated Research on Disaster Risk (AIRDR):

At present, there is no large-scale overview of the state of scientific knowledge on integrated disaster risk that could serve as a scientific baseline for the post-Hyogo Framework meeting in 2015. AIRDR proposed the following actions to fill this gap:

- i. Review the state of science from 2000-2013 for GAR based on the key thematic areas as a foundation for GAR 2015.
- ii. Use peer-reviewed literature on GAR's key themes supplemented, where appropriate, with grey literature.
- iii. Identify findings that support or contradict the scientific basis for the key themes and the consistency of such findings in the literature.
- iv. Provide a peer reviewed paper of the state of the science by May 2014.

Cost: \$36,000-\$54,000 (~60-90 days FTE)

2. Disaster Loss Data (DATA):

It is true that on a global view disaster losses are increasing. However, in different countries it is not the case if increase in wealth and population over time is taken into account. In order to verify this, high quality data are needed as is a common understanding of economic loss. To achieve these, DATA proposed the following actions:

- i. Develop a set of data standards for use in global, national and local datasets including harmonisation of peril classes, articulation of what is counted, and metadata.
- ii. Discuss the need and requirements for a "loss and non-loss database" in order to verify the above statement.

Cost: \$35,000-\$75,000 (for two meetings of database developers/managers and users).

3. Forensic Investigations of Disasters (FORIN):

FORIN proposed the following actions in support of GAR 2015:

- i. Assemble a complete set of FORIN papers and reports. This will include papers from all past FORIN workshops and seminars.

- ii. Write a synthesis paper on the basis of this new literature in a form suitable for use by GAR 2015.
- iii. Compile a set of boxed case studies and examples from the FORIN literature for selection and potential inclusion in GAR 2015.

Cost: \$20,000 (time and travel)

4. Risk Interpretation and Action (RIA):

RIA proposed to conduct an evidence-based exploration of the relationship between incremental and transformative risk management (I-T). Three options, and their associated costs, were outlined to take this work forward in support of GAR 2015:

- i. An initial, illustrative defining of the I-T challenge space for disaster risk management (DRM), drawing post-event evidence from academic literature for large events (e.g. Marmara and Mitch), and a single illustrative case from the Global Network of Civil Society Organisations for Disaster Reduction (GNDR) for extensive risk. This includes two weeks for a lead academic author (\$12,500) and two months for research support (\$12,500). Light touch peer review by the RIA core team would not be charged.

Cost: \$25,000

- ii. A systematic empirical exploration of the I-T challenge built around current, initial theoretical considerations and considering pre- and post-event policy/practice trajectories. Empirical work would have three strands:

- An analysis of the national returns to the HFA to identify national trajectories of incremental-transformative policy history. This would be used to develop (a) an overview of HFA progress through the I-T lens, and (b) to identify a number of case studies for further detailed analysis including literature review and interviews with key stakeholders, to better understand the contexts and processes through which step-changes in DRM practice were precipitated (we could also explore cases of failure).
- To undertake with the GNDR a systematic review of their experiences to explore a bottom-up view of I-T and one that can capture, but need not be restricted to, extensive risk and everyday disaster, and through interviews to examine I-T tensions in pre-disaster/on-going development contexts when DRR investment and strategy decisions are being made.
- A systematic review of academic literature to identify and then mine ‘iconic’ catastrophic events through the I-T lens to examine the ways in which disasters influence trajectories. Candidates are Mitch, Marmara, the Indian Ocean tsunami, the Japanese earthquake and tsunami, and the Christchurch earthquake.

Cost: \$65,000 (This includes: one month time for a lead academic author (\$25,000); five months of researcher time, including GNDR research time (\$33,000); a two day brainstorming workshop drawing from the RIA core team, GNDR, GAR and other participants (\$7,000). Light touch peer review by the RIA core team would not be charged.)

- iii. A comprehensive empirical analysis, as described in option ii above, but framed by concrete conceptual advances to clearly define the I-T challenge space oriented to the GAR/HFA project. Conceptual innovation would explore contributions from co-production of risk, resilience and behavioural theory using expert contributions.

Cost: \$95,000 (This includes: one month time for a lead academic author (\$25,000); five months of researcher time, including GNDR researcher time (\$35,000); five expert background papers drawing leading international experts on decision-making, political science and expert practitioners, and a two day writing workshop (\$35,000). Light touch peer review by the RIA core team would not be charged.)

These recommendations were compiled and submitted to MASKREY for his review and final decision.

Institute of Remote Sensing and Digital Earth (RADI)

Jie LIU, representing ex officio, Huadong GUO, RADI's Director General, provided the meeting with updates on:

- 1. Establishment of the Institute of Remote Sensing and Digital Earth (RADI):** RADI was established on 8 November 2012, through the merger of two Chinese Academy of Sciences (CAS) institutes: the Center for Earth Observation and Digital Earth (CEODE) and the Institute of Remote Sensing Applications (IRSA). RADI's nameplate unveiling ceremony was held on 22 April 2013.

The merger has resulted in the formation of five major committees one of which, the International Expert Committee, BRICEÑO and JOHNSTON were invited to join to enhance the collaboration between RADI and IRDR. LIU (RADI) noted that, with RADI's increased capability, easier access to more facilities and resources, as well as a larger international cooperation network, the Institute will continue to provide the IRDR IPO its support into the future.

- 2. CAS-TWAS Centre of Excellence on Space Technology for Disaster Mitigation (CoE STDM):** The CoE STDM was formally established in early 2013, and will be officially launched in mid-June 2013. The Centre is jointly sponsored by CAS and the Academy of Sciences for the Developing World (TWAS), and hosted by RADI. It is the Centre's goal to conduct research on disaster mitigation through advanced space technologies, especially space-borne Earth observation technology, and provide knowledge transfer in developing countries through joint research, education, training, workshops and advisory services.

The following was highlighted as the Centre's potential support to and collaboration with IRDR:

- Supporting IRDR activities with developing countries through its fellowship programme, including the CAS-TWAS President's Fellowship Programme for PhD candidates from developing countries, postdoctoral fellowship, and visiting scholars' fellowship.
- Funding young scientists recommended by IRDR to attend training workshops or conferences.
- Exploring the possibility of conducting scientific research with developing countries in line with the activities of the IRDR projects.

PELLING queried the possibility of greater integration of the social sciences, through the IPO, for a more integrated approach to risk management. LIU (RADI) noted that the Centre is still in its planning stage; however, the opportunity for such integration exists

through the Centre's fellowship programme, which will bring on PhD students from all academic backgrounds to support their study at CAS, which also comprises institutes devoted to the social sciences.

III. International Programme Office (IPO) Updates

2012 Annual Report

The 2012 Annual Report (see Document 9/3.1) is available for review. SC Members were invited to provide the IPO with their comments and suggestions for revisions as soon as possible.

Strategic Plan (2013 - 2017)

The Strategic Plan (see Document 9/3.2) was published in early 2013, reflecting all the suggestions from the eighth SC meeting. ROVINS noted, however, that, in consultation with the Co-Sponsors, it was agreed that the Mission Statement used in the Strategic Plan should reflect that which has been used in several documents prior to the eighth SC meeting.

Work Plan (2013 - 2017)

ROVINS clarified that the projects' work plans were documented in an overall Work Plan for the Programme. Members were invited to contact her for a copy.

2014 Conference

- ***Place and date:*** The conference will again be held in Beijing from 7 to 9 June 2014. It was agreed between the IPO and the International Consortium on Landslides (ICL) to hold the conference after the latter's third World Landslide Forum, 2 to 4 June, to encourage greater participation in each event. Additionally, the sixth Asian Ministerial Conference on Disaster Risk Reduction (AMCDRR), which initially coincided with the conference, has been rescheduled to 23 to 26 June in Thailand. This was agreed on between the Government of Thailand and the UNISDR's Asia Pacific Regional Office so as to encourage equal attendance at both events.
- ***Theme:*** ROVINS noted that the theme, "Integrated Disaster Risk Science: A Tool for Sustainability," was broad enough that the conference's outcomes could feed into the HFA2 and SDGs dialogues in 2015.
- ***Format:*** This has not been finalised; however, the IPO has received several suggestions, for example, including a plenary session with policy makers, parliamentarians, ministers and Heads of States. In response to CUTTER's concern about concurrent sessions, ROVINS informed that the decision was taken to exclude concurrent sessions to ensure attendees benefit from all sessions.

When asked by ZLATANOVA about the possibility of publishing select papers from the conference ROVINS indicated that, to date, the planning has not included this aspect. JOHNSTON suggested this could be an activity for the projects to consider after the conference. LIU (RADI) suggested that RADI could assist in this based on their

experience with the recently held 35th International Symposium on Remote Sensing of Environment (ISRSE) conference.

- **Funding:** The China Association for Science and Technology (CAST) are once again funding the conference, while RADI will provide administrative support to the conference in terms of staffing, etc. A significant portion of the IRDR budget will go towards conference expenses such as paying for speakers' and SC Members' travel to Beijing. Discussions have been held with the United States Agency for International Development (USAID) and the New Zealand Aid Programme (NZAID) about possible grants to pay for attendees from developing countries, which these funding agencies have done for similar events in Asia. An update on these negotiations will be provided accordingly.

Executive Director's Report (see Document 9/3.4)

- **Financial update:**
 - **Operational budget:** 92 per cent of the CAST allotment, 2.7 million RMB annually, supports the Programme; 1.3 million RMB, carried over from 2012, will be the IPO's financial contribution to the conference.
 - **IRDR grants account:** this is a flexible account in which management fees from previous grants and registration fees from the 2011 conference were deposited, and can be spent as the SC specifies. Previous expenditure from this account included supporting SC Members' travels to events representing the IRDR. There is currently an estimated US\$22,000 in the account.

- **Staffing:**
 - **Communications Officer:** the previous Communications Officer resigned in March 2013, and several applications have been received in response to the vacancy notice. During his visit to the IPO in early June, JOHNSTON will assist in the interviews for the new Officer.
 - **Employment contracts:** the Administrative Officer's contract has been renewed for two years, while the Executive Assistant's term ends June 2014.
 - **Staff leave:** the Administrative Officers will proceed on maternity leave in June for four months. During this time, ROVINS and the Executive Assistant will be the points of contact. Efforts are underway to find a temporary replacement.
 - **Additional IPO staff:** discussions have been held concerning the inclusion of a Deputy Director/Senior Science Officer post or, alternatively, a second Junior Science Officer. ROVINS noted, however, that there may not be adequate funds for the inclusion of a Deputy Director/Senior Science Officer post, in addition to there not being adequate responsibilities to justify adding such a post.

- **Communications:**
 - **Website:** the revised website was launched in early 2013, and SC Members' reviews and suggestions for improvements were useful. MOORE observed that, although much improved, he found it still difficult to easily access information about the programme and its activities. PELLING suggested that the website should include a section for associated research projects and, when shown the sponsored projects section, he advised that this may need rewording as these projects are not ones to which IRDR has provided funding. It was therefore agreed that this section of the website be renamed "affiliate activities."
 - **Social media:** ROVINS noted that, while the IPO has been asked about its use of social media tools like Facebook and Twitter, the Office's location in China restricted

their use. For GPDRR 2013, ICSU has agreed to assist by using its Twitter account to announce IRDR's IGNITE Stage presentation.

- **Terminology:** MOORE voiced concern about the emphasis on the phrase “working groups,” and suggested AIRDR, DATA, FORIN and RIA should be called IRDR Projects, while referring to the working groups as the groups of persons involved in fulfilling these projects. The SC Members agreed to this, and the IPO will revise all its documentation, including the website, to reflect this decision.

Recruitment of a New Executive Director

MOORE informed the meeting that ROVINS will exit the IPO as Executive Director on 30 November 2013. In pursuit of a successor, the Co-Sponsors have prepared a vacancy announcement, which is now being reviewed by JOHNSTON and, once completed, will be widely distributed. The deadline for the receipt of applications will be mid-July and interviews conducted in Beijing in September. The interview panel will include the Co-Sponsors, Prof GUO from RADL, and the SC Chair.

MOORE thanked ROVINS for the manner in which she expressed her continued commitment to the ideals and objectives of the IRDR programme. The SC Members also expressed their appreciation for ROVINS' contribution to the Programme during the past three years, in particular her valuable contribution in managing the early stages of the programme and the setting-up of the IPO in Beijing, which she did effectively and efficiently.

IV. Funding Updates

LANDSCAPE-LAC Project

ALCÁNTARA-AYALA informed the meeting that the project, *Landslide Networking for Disaster Studies, Capacity Building, Partnership and Engagement in Latin America and the Caribbean (LANDSCAPE-LAC)* (see Document 9/4.1), was successful in its bid for an ICSU grant of €30,000. The IRDR supported the grant application. The grant will go towards organising two workshops on forensic investigations of disasters associated with landslides.

The first workshop, the International Workshop on Forensic Investigations of Disasters (FORIN) Associated with Landslides, will be held from 24 June to 5 July 2013 at the University of Science and Arts of Chiapas in Mexico. The main objective of this workshop is to share the FORIN methodology with its participants in order to understand the complex and underlying causes of landslide disasters. The workshop will be conducted in Spanish and targets young scientists, between ages 20 to 40 years, from all disciplines related to the DRR field. Participants will be expected to apply the FORIN methodology through case studies in different Latin American countries. The grant will go towards participants' transportation costs, accommodation and meals. A total of 20 young scientists will be accepted; eight applications have been received to date.

The theoretical segment of the workshop will take place during the first week at the University of Science and Arts of Chiapas, conducted by OLIVER-SMITH. In the second week, participants will go to Motozintla, known for landslide events and other types of disasters, for the practical segment of the workshop. The second workshop, the follow-up to

the first, will take place in early-2014 at the Mexican Academy of Sciences. Participants will be expected to present the results of their case studies developed during the first workshop.

Mathematics of Climate Change, Related Natural Hazards and Risks Workshop

This workshop will take place from 29 July to 2 August 2013, at the Centro de Investigación en Matemáticas (CIMAT), Guanajuato, Mexico, and will explore the topics of climate research, environmental hazards, and sustainable development. The IRDR supported the grant application (see Document 9/4.2). CUTTER was initially scheduled as a speaker but will not be able to attend. The IPO will identify a speaker and confirm with the workshop organisers.

MEOPAR Project

ROVINS informed the meeting that in 2012, through IRDR Canada, the IPO wrote a letter of support to the Marine Environmental Observation, Prediction and Response (MEOPAR) project, valued at CA\$25 million. The project was successfully funded.

New Grant Opportunities

At the instruction of the SC and Co-Sponsors, the IPO worked to identify funding opportunities for the Programme's projects. Several have been identified:

1. **Bill & Melinda Gates GCE Initiative:** The Bill & Melinda Gates Foundation Grand Challenges Explorations (GCE) initiative, in the first instance, provides grants of US\$100,000 to anyone or any organisation with an innovative idea, once it fits into one of their four topics. Once accepted in phase I of the programme, projects would also be eligible for phase II funding of US\$1 million. Based on the grant's criteria, the IPO determined the GCE a good match for the DATA project. DATA's application, after being reviewed by the co-chairs, was submitted under the topic "Increasing Interoperability of Social Good Data," by the 7 May deadline. Decisions on successful proposals will be made by the end of August 2013.
2. **VolkswagenStiftung Foundation, Germany:** The IPO will be consulting with the AIRDR project co-chairs and others on the feasibility of applying to the VolkswagenStiftung Foundation's "Key Issues for Academia" initiative. The deadline for applications is 15 November 2013.
3. **National Science Foundation (NSF), USA:** The US' National Science Foundation (NSF) has a call for proposals for their Decision, Risk and Management Sciences (DRMS) grant programme. BOSTROM, who is more familiar with NSF grants, provided more details on this aspect of the NSF programme. There are two grant programmes that are possible candidates for IRDR to pursue. The first is the Interdisciplinary Research in Hazards and Disasters (Hazards SEES) programme, which is a standard interdisciplinary opportunity. The deadline for the first call for proposals was in January 2013, and the next will be in 2014. There are two different categories: the first offers seed funding; the second is for larger funding for multi-year projects.

The second grant programme is the Partnerships for Enhanced Engagement in Research (PEER) Science. This programme is a partnership between the NSF and USAID, and the competition is run by the National Academies. The call for proposals will be published in January 2014. BOSTROM elaborated that the Principal Investigator (PI) must be a researcher in a developing country (not a US researcher working in a developing

country), and must have a NSF-funded collaborator in the US, and the NSF funding must be for the duration of the proposed PEER project.

4. **United Kingdom's DFID and UK Research Councils:** PELLING informed the meeting that he, representing IRDR, was invited to participate in a consultation by the United Kingdom's (UK) Department for International Development (DFID) and the UK Research Councils, who are formulating a new research programme on disaster risk reduction. The programme will be officially announced in January 2014, and has some funds allocated for research. ROVINS requested PELLING provide the IPO with a brief summary of his involvement in this consultation.

General Discussion on Funding for Projects

JOHNSTON noted that a more strategic approach is needed when targeting grant sources, as some of the Programme's research areas may be easier to fund than others such as DATA, or the Programme utilises in-house funds that it has control over to fund such areas. JOHNSTON also suggested taking advantage of the currency of other projects, such as FORIN, to capture those low-hanging fruits. BRICEÑO agreed and suggested that DATA may require an opportunistic approach: if there is a funded meeting on another topic then it may be possible for DATA to be included as another focus. WIRTZ agreed with this strategy or the project could be re-organised accordingly.

CUTTER noted, however, that the issue of funding is part of a larger structural issue within the Programme that must be addressed: is the IRDR advocating for integrated science in policy-making through avenues like the GAR, or is the Programme one that is conducting integrated scientific research? CUTTER emphasised that while RIA and FORIN are research-oriented initiatives, AIRDR is a one-off initiative with no long-term research agenda, and DATA is an outreach service trying to reconcile and rationalise the data landscape, an activity CUTTER refers to as addressing an infrastructural issue within the field. She asserted that the latter may be a legitimate role for IRDR: supporting the infrastructure for both science and policy. OLIVER-SMITH supported this position, noting that funders wanted to see an institutional capacity within IRDR to manage or coordinate large-scale research, which does not exist.

MOORE stated that it was ICSU's view that IRDR would become a sustainable research programme, drawing on the lessons learnt from its four environmental change programmes. These did not receive major funding from ICSU but were successful in attracting large sums of funding over the years. He was unsure of the specific reasons behind IRDR's inability to attract funding, but suggested that the changing economic and political environment may be a factor, or the Programme is not systematically going after funding.

HERNES observed that the SC placed too much focus on strategy and too little on events. He explained that opportunities existed in the occurrence of disaster events, which he opined the Programme was insufficiently utilising as opportunities for communication with research councils. He suggested that a sub-group of the SC be tasked with communicating directly with research councils when a disaster occurs to inform them that IRDR has already been organised to create the required knowledge to impact on decision-makers to reduce disaster risk. Otherwise IRDR will be among many similar programmes/organisations competing for grants.

V. Project, National Committee (NC) and International Centres of Excellence (ICoE) Updates

Project Updates

1. **AIRDR:** CUTTER, after providing an overview of AIRDR (see Document 9/7.1), noted that the project has not begun its activities to date due to the inability to secure funding. Despite this, CUTTER informed that, utilising resources within her Institute, the Hazards and Vulnerability Research Institute (HVRI), she had begun the bibliography project to survey peer reviewed scientific literature in English and to produce the material that can be given to the Regional Coordinators for their particular region's assessment. This internet-based research resulted in locating 65 academic English-language journals, 54 of which have sufficient material to be included in the global assessment. This is being organised into a bibliographic database, inclusive of abstracts, keywords and full texts of the articles. Once completed, the articles will be secured within a password protected online database, and the password supplied to the regional writing teams.

In the event that AIRDR is unsuccessful in raising funds, CUTTER proposed two alternative approaches:

- **Plan B:** establish AIRDR as a template, with a set of guidelines, for conducting scientific literature assessments. These would be reviewed by an editorial committee to ensure adherence to the approach and uploaded to the IRDR website. This approach takes advantage of existing research efforts, with little or no associated costs. However, it may not be comprehensive on the topic or region, and there may be inconsistencies in the type of literature reviewed.
- **Plan C:** work in conjunction with UNISDR in supporting GAR 2015 to review the state of the science from 2000 to 2013, based on GAR's specific themes. See section II for an elaboration of Plan C under **IRDR's Contribution to GAR 2015**.

IUGG Proposal for a Global Assessment Mechanism: ROVINS provided the meeting with an update on the proposal by the International Union for Geodesy and Geophysics (IUGG) for the formation of an intergovernmental panel on hazards (IGPH) (see Document 9/7.1), through which AIRDR could be championed. At the ICSU General Assembly held in Rome, Italy, 27 to 30 September 2011, the International Union for Geodesy and Geophysics (IUGG) submitted a resolution for the setting up of an IGPH. The resolution failed for procedural reasons, but the concept was referred to the ICSU Executive Board, which, at the sitting of its 107th Session, decided to invite IRDR to advise on the matter in consultation with the ICSU's Geo-Unions, and then present its findings at the Board's 108th Session.

A scoping group will be organised to answer the ICSU Executive Board's concerns and, based on initial consultations with the Geo-Unions, the recommendation will be that ICSU, UNESCO and other relevant partners continue to go forward with this intergovernmental panel, while AIRDR would be supported as an initial step towards the formation of such a panel.

2. **DATA:** WIRTZ provided the meeting with a detailed presentation about the background of the DATA project and what the project will try to achieve during its lifetime. The project's first expert meeting was held from 31 October to 2 November 2012 in Taipei.

The second meeting, which was planned for April 2013, was not held and is now scheduled for the end of 2013.

In terms of moving forward DATA has identified both short and long term activities to achieve its goals. In the short term, for action in 2013, there will be the need to:

- Evaluate the existing peril/hazard terminology and hierarchy put together by CRED, UNDP, DesInventar, Munich Re, Swiss RE and ADRC and then endorse such a framework by IRDR/ICSU.
- Improve the GLIDE numbering system of disaster events. The Project has some ideas on how to improve GLIDE and how it could serve as a platform for linking other data on specific disasters such as FORIN research outputs.

In the long term DATA will need to:

- Assess the human impact of disasters as there are longer term issues with inconsistencies in how human impact is measured and some new opportunities for assessing number of people affected by disasters.
- Create a catalogue of existing methodologies/research on measuring economic impacts. Bibliographic work needs to be conducted on the present state of knowledge on methodologies for measuring economic impacts specifically and disaster impact assessment more broadly.

CUTTER emphasised that DATA is trying to effect change within the disaster loss data landscape to ensure that there is a standard in terms of peril classes, with unique identifiers. The attendees at DATA's first expert meeting committed to revise how they're databases are classified. For instance, Swiss Re, the Spatial Hazard Events and Losses Database for the United States (SHELDUS) and the National Climatic Data Center at the US's National Oceanic and Atmospheric Administration (NOAA) have begun adjusting how their databases are classified. DATA is therefore making strides in providing the infrastructure needed by the stakeholders and what the policy communities need to make informed decisions; however, funding is needed to continue building on this momentum.

ROVINS suggested that, with the agreement of the SC Members, the funds available in the IPO's grants account could fund the second DATA meeting at the end of 2013. JOHNSTON proposed to the SC Members that the funds available in this account, plus any additional amounts secured from the IRDR/ICSU account, be made available to DATA for their second expert meeting, pending review of a proposal from DATA. The SC Members agreed. The DATA co-chairs will submit this proposal to the IPO for a final decision from the SC.

3. FORIN: The meeting was provided updates on FORIN activities since the eighth SC meeting, and upcoming events:

- **Advanced Seminar for FORIN at the first IUGG GRC Conference:** this special session on FORIN was held during the first IUGG GRC Conference on "Extreme Natural Hazards and Their Impacts" at Chapman University, California, from 8 to 11 December 2012 (see IRDR Annual Report 2012, Document 9/3.1, pg. 12). There were two sessions within the seminar, involving the presentation and discussions of 11 papers. A report is currently available on this Seminar (see Document 9/8.1).

- **First LANDSCAPE-LAC Project workshop:** this workshop, the first of two in the LANDSCAPE-LAC project, will take place in Chiapas, Mexico from 24 June to 5 July, as discussed above in section IV.
- **FORIN seminar at State of the Art of Applied Anthropology Conference in Peru:** OLIVER-SMITH will be conducting a seminar on FORIN at this conference in Peru in September 2013.
- **FORIN Project on Typhoon Morakot:** this project is being led by IRDR ICoE-Taipei, working with the National Center for Disaster Risk (NCDR). The study is now being translated into English. LIU (IRDR ICoE-Taipei) requested assistance from the FORIN co-chairs to review the document when the translation is completed.
- **FORIN's online Community of Practice (CoP):** the IPO launched the FORIN CoP on the IRDR website on 17 April 2013. The CoP consists of sections for FORIN documents, FORIN-based studies and papers, and the FORIN listserv. The latter is the online discussion forum for those already undertaking FORIN studies and those interested in the methodology. The listserv is also the avenue to share FORIN news, proposals, results, and ideas. Since its launch, the listserv has four posts and a subscription base of 39 persons.
- **Further implementation of the FORIN work plan:** the project will continue to progress the work plan; however, it is limited in its implementation due to the lack of funding for the plan's research and publication aspects. BURTON suggested a more formalised understanding of what is a FORIN study, in light of the number of studies and papers (see Document 9/8.2) that have been made public under the FORIN theme, by conducting a review and writing a summary of the current FORIN studies and papers available. It was also suggested to publish a second edition of FORIN Report No. 1. BURTON suggested that this could be more formally adopted by the UNISDR for the HFA2 period as a high potential research activity (see FORIN recommendations for GAR 2015 in section II). ALCÁNTARA-AYALA queried the possibility of a background paper on FORIN for inclusion in GAR 2015, to which MASKREY responded that such a paper would be possible.

Using FORIN as an example, CARDONA strongly suggested that IRDR should play an advocacy role for its projects, in order to increase the Programme's acceptance within the research agenda of each country's national academy of science and their respective national disaster risk management platforms. This can be done through the submission of background papers to countries' national science foundations, the academies of science and the scientific unions, in order to drive funding for the projects at the national levels. MASKREY voiced his strong support of this suggestion.

PELLING informed the meeting that Kings College London (KCL), as part of a consortium, was awarded a grant under the European Commission's Seventh Framework Programme (FP7), totalling €6 million, of which €450,000 will be available for FORIN studies in four different countries over the next four years. Funds will be available for methodology workshops between 2013 and 2014, and moving towards results and policy influence in the next three or four years. PELLING noted that the inclusion of FORIN in the project proposal increased the value of the proposal

to the funders and so FORIN's co-chairs should get in touch with him to see how best to progress the FORIN work plan via the FP7.

JOHNSTON also informed the meeting that his Centre, the Joint Centre for Disaster Research in New Zealand, received funding to initiate a FORIN study in July 2013, on the Christchurch earthquake. This will also include funding to include members of the FORIN project as contributors.

4. **RIA:** JOHNSTON proposed to the Members that, since he has taken on the role of SC Chair, he be replaced as co-chair of the RIA project by PELLING. BOSTROM seconded this suggestion. There being no disagreements from the Members, it was agreed PELLING co-chair the RIA project working group, along with Dick Eiser.

The meeting was informed of the following RIA project activities to date:

- **Risk Interpretation and Action workshop:** PELLING provided an overview of the RIA project and an update on this recently held workshop, from 16 to 17 May 2013 at King's College London (KCL). This was an agenda setting workshop to better integrate behavioural and social science and practitioner approaches to knowledge and learning in resilience building for disaster risk management. The workshop brought together 35 leading academics, practitioners and members of the Natural Science Research Council (NERC), and concluded with 10 research ideas that RIA will take forward. PELLING will provide a report on this workshop.
- **Society for Risk Analysis-Europe's (SRA-E) annual conference:** BOSTROM informed the meeting that there will be a RIA-themed session at the Society for Risk Analysis-Europe's (SRA-E) annual conference in Trondheim, Norway, from 17 to 19 June 2013. The session, titled "Natural hazards: risk interpretation and action," will be chaired by Dick Eiser, and includes five presentations.
- **38th Annual Natural Hazards Research and Applications Workshop:** A RIA session, "Risk Communication and Decision Making," has been included in the 38th Annual Natural Hazards Research and Applications Workshop in Colorado, USA, from 13 to 16 July 2013. JOHNSTON and BOSTROM are members of the panel.
- **Second World Social Science Forum (WSSF):** The Forum will be held in Montreal from 13 to 15 October 2013. RIA's proposal for a panel, "Decision-making in times of Uncertainty," was accepted and JOHNSTON will be chairing that panel.
- **World Social Science Fellows Programme:** A formal announcement of the Fellows Programme is forthcoming, inviting up to 30 young scholars who completed their doctorates within the past five years to attend a five-day workshop in Wellington and Christchurch, New Zealand from 7 to 15 December 2013. The theme of the workshop is "Risk Interpretation and Action: Decision-making under conditions of uncertainty." The workshop will examine how critical decisions are made in the absence of critical information and particular actors, and what are the factors that shape decision-making.

LAVELL informed the meeting of a FLACSO regional project, awarded through the Climate and Development Knowledge Network (CDKN), on risk analysis and decision-making. The project will involve a regional workshop in San José, Costa Rica in

September/October 2013, comprising decision-makers and producers of risk analysis. The first product of this project will be a scoping paper on decision-making in Latin America. He invited RIA to engage with the project's committee to get more details. PELLING agreed to this and encouraged other Members to get in touch with him if they are aware of other such opportunities for RIA's engagement.

5. **Societal and Economic Research and Applications (SERA):** A proposal has been put forward to merge SERA with RIA, the former as a sub-group within the RIA project, due to the similarities between the two. More information on this will be provided after further discussions with the World Climate Research Programme (WCRP).
6. **Proposal for a new IRDR Project:** LIU (IRDR ICoE-Taipei) proposed the addition of a new IRDR project, in support of strategic goal 4: reducing risk and curbing losses through knowledge-based actions. The tentative title of this proposed project is Vulnerability Assessments and Disaster Risk Reduction, and its primary focus would be engineering science. The following were identified as some of the project's proposed research areas:
 - Reducing vulnerability through engineering science for example, land-use planning, disaster preparedness and education.
 - Preventive measures to reduce disaster risk, for example, structural and non-structural approaches.
 - Case studies to explore lessons learned and experiences gained.

LIU (IRDR ICoE-Taipei) outlined the following as the project's way forward:

- Convene a kick-off meeting with interested SC members to develop a draft working paper defining the objectives, focused areas and work plan.
- Submit the working paper to the IRDR SC for review and comment.
- Finalise the working paper and work plan.
- SC approves the new project and its work plan.
- Identify chair, co-chair and members of the project working group.
- Conduct first committee meeting and identify the first research activity.

BENOUAR congratulated LIU (IRDR ICoE-Taipei) for this suggestion, which he described as the missing link between the other projects. ZLATANOVA was also in support of the concept but did not think it necessary to be an additional project but should be integrated within the existing framework. OLIVER-SMITH agreed that the natural and engineering sciences were not fully integrated within the IRDR framework and this proposal could do so. BRICEÑO reminded that it was a decision of the SC that new projects should not be created. Instead key issues should be identified, which this proposal could be one, and appropriately integrated within one of the existing projects, in this case, both FORIN and RIA have vulnerability assessments and DRR at the core of their work. He suggested discussing further how to ensure this integration at the 10th SC meeting. The IPO will provide the SC with this proposal in advance.

National Committee (NC) Updates

1. **IRDR China:** LIU (RADI), on behalf of IRDR China, provided the meeting with the following updates:

- **Translation of FORIN Report No. 1:** this report was translated into Chinese and is now available for download from IRDR China's website.
- **2012 annual meeting:** At this meeting, held in Beijing on 23 July 2012, the first set of supported projects for the 2012-2014 period were approved, with funding provided by CAST.
- **Website:** the revised IRDR China English website, <http://www.irdrchina.cn/en/>, was officially launched in August 2012.
- **International Symposium on Earth Observation for Arid and Semi-Arid Environments:** IRDR China hosted the session “Disaster Risk, Impact, and Mitigation” at this Symposium, which was held in Kashgar, from 20 to 22 September 2012. The IPO provided a presentation.
- **Symposium on Integrated Research on Disaster Risk:** this was held in Chengdu on 6 November 2012, which provided the platform for the exchange of research results in the field of integrated research on disaster risk and acted as a catalyst to promote the interdisciplinary and multidisciplinary research on disaster risk. Over 70 experts from disaster-related fields were in attendance.
- **International Research on Disaster Risk Roundtable Meeting:** this was held in the afternoon of 6 November 2012, and was organised to exchange experiences on major disaster risk research and science and technology for disaster mitigation, and to discuss the possibility of cooperation others. The Roundtable involved the participation of foreign specialists and scholars, the IRDR SC and the IPO, and representatives from IRDR China and related research institutions and universities from across China.
- **Research projects:** in 2012 CAST invested one million RMB into five IRDR China research projects: two FORIN studies, one DATA project, and two Young Scientists projects:
 - IRDR China FORIN research projects:
 - FORIN case study on seasonal drought in southwest China under the condition of climate change - taking the drought in Yunnan Province as an example
 - Disaster bearing capacity and risk assessment in urban areas – taking the Wenchuan earthquake as an example
 - IRDR China DATA project:
 - Research on organisation mode of history data of disaster loss - taking flood as an example
 - IRDR China Young Scientist research projects:
 - Research on mountain hazard risk management mechanism within a community
 - Climate change, drought and population migration: dynamic mechanism and risk assessment

LIU (RADI) reiterated that IRDR China will continue to work closely with IRDR to promote the programme in China and also to make every effort to become fully involved in the various IRDR activities, especially at the project levels.

2. **IRDR Japan:** TSUKAHARA, IRDR Japan's Secretary General, provided the meeting with the following updates:

- ***IRDR Japan upgraded:*** in 2012, IRDR Japan was upgraded from a temporary committee to a standing sub-committee under the Committee on International Affairs and the Committee on Civil Engineering, Science Council of Japan (SCJ).
- ***IRDR Policy sub-committee launched:*** a policy sub-committee on IRDR was launched in 2012, on which government agencies and other practitioners were invited to join. BRICEÑO, in his former capacity of SC Chair, attended the sub-committee's meeting in November 2012, to discuss how to proceed with IRDR activities in Japan.
- ***IRDR international meeting:*** IRDR Japan submitted a proposal to the SCJ for holding an IRDR international meeting in May 2015 in Tokyo, directly after the WCDR. The proposal is still being evaluated by the SCJ, and the SC will be informed when a decision has been made.
- ***Research programme:*** a large scale research programme has been proposed to the Japanese Government and, if approved, IRDR Japan can go ahead with its research programme on a full scale and in an integrated approach, involving all relevant local stakeholders such as government agencies and foreign disaster research institutes. The Government's decision on the proposal is expected during the current fiscal year.

TSUKAHARA also provided the meeting with an update on the reconstruction efforts after the Great East Japan Earthquake and Tsunami (GEJET). The presentation is available from the IPO.

3. **IRDR New Zealand:** The Natural Hazards Research Platform (NHRP) is the IRDR NC in New Zealand. The NHRP consists of experts from two government research organisations, the Geological Survey and the MetService, as well as seven universities, and has been attempting to provide specific interdisciplinary research on volcanology, earthquakes, seismology and engineering as well as cross-cutting themes of social and economic research for a more integrated approach. The current annual report for the Platform will be available later in the year; however, the 2011 annual report is available on their website, <http://www.naturalhazards.org.nz/>.

4. **Proposed NCs:** updates were provided on the development of the following proposed NCs:

- **IRDR Australia:** JOHNSTON and ROVINS will be clarifying some issues as it concerns the IRDR programme with the research community in Australia, involving both government and academic researchers, to move the development of an IRDR Australia forward.
- **IRDR Colombia:** CARDONA provided the meeting with an update on the development towards an IRDR NC in Colombia. In April 2012, Colombia passed into law a new act for both natural disaster response and prevention, the National Disaster Risk Management System Act. Included in this new Act is the provision for the creation of three national committees, one of which, the National Committee of Knowledge of Colombia, is proposed to be the IRDR NC in Colombia. The IPO

awaits the submission of an Expression of Interest (EOI) for the SC to consider National Committee of Knowledge of Colombia as an IRDR NC.

- **IRDR Panama:** Panama has decided to set up a scientific committee within their national DRM system (SINAPROC) to focus on strengthening research, capacities and knowledge management for that system. Upon learning about the IRDR NC system, they have been in contact with the IRDR to progress along designating this new committee as the IRDR Panama.
- **IRDR South Korea:** this NC is still in its development stage, and is currently working on putting together an integrated body of researchers, supported by the UNISDR training office in Korea.
- **IRDR Sweden:** ROVINS has asked LAVELL, who will be meeting with the representatives involved in the development of IRDR Sweden during the Global Platform, to obtain an update on IRDR Sweden's developments.
- **IRDR UK:** PELLING provided information on several new developments in the United Kingdom (UK) with the potential of developing into either an IRDR NC or ICoE. Kings College London (KCL) has a new Centre on Integrated Research on Risk and Resilience with a small amount of funds available for research. The Centre has entered into dialogue with three of the other major research centres in hazards and social science research to begin negotiating the Centre's direction: Bristol University, Durham University and University College London (UCL). PELLING will provide the SC with additional information as this progress.

International Centres of Excellence (ICoE) Updates

1. Taipei: LIU (IRDR ICoE-Taipei) provided an update on the Taipei ICoE as follows:

- **Operating framework:** There are two components of the ICoE-Taipei's operations: international and domestic. As it relates to IRDR, an International Advisory Board (IAB) oversees the international component and recently JOHNSTON agreed to be its new member. ICoE-Taipei also contributes US\$300,000 annually to ICSU for the operation of the international component of the programme, according to the agreement signed between the Academy of Sciences and ICSU in November 2010, the latter on behalf of all three Co-Sponsors. MOORE reminded that, as IRDR is not a legal entity, any agreements with future ICoEs involving finances will have to involve the Co-Sponsors.
- **Activities, 2012-2013:** the following activities for the 2012-2013 period were described in line with several of the IRDR's strategic goals:

Goal 1.3 - Advance capacity building for young scientists:

- Currently developing a proposal on Trans-boundary Research and Capacity Building on DRR/DRM in Southeast Asia. This proposal will be completed in July 2013.
- Will conduct a young scientist workshop on DRR/DRM in October 2013.

Goal 2.1 - Develop and implement the Disaster Loss Data (DATA) project:

- Hosted a DATA Workshop from 31 October to 2 November, 2012.

- Co-sponsored the 23rd International CODATA Conference on “Open Data and Information for a Changing Planet,” 28-31 October 2012.
- Hosted an Advanced Institute on Data for Coastal Cities at Risk, 22 to 27 October 2012.

Goal 3.1 - Develop the Risk Interpretation and Action (RIA) project:

- The ICoE partnered with ISSC, RIA, the Global Change System for Analysis, Research and Training (START), and the Royal Society of New Zealand, as co-sponsors for the World Social Science Seminar on “Risk Interpretation and Action: Decision-making under conditions of uncertainty,” to be held from 7 to 15 December 2013, as part of the 2013 World Social Science Fellows Programme (see RIA update above).

Goal 4.1 - Develop and implement the Forensic Disaster Investigations (FORIN) project:

- Hosted an Advanced Institute on Forensic Investigation of Disasters in Southeast Asia from 12 to 18 March 2012. Over 50 persons attended and the faculty included OLIVER-SMITH and LAVELL.
- In partnership with the NCDR, currently developing a FORIN report on “Forensic Investigation of Typhoon Morakot, Taiwan.” This will be completed in September 2013 (see FORIN update above).

Goal 5.1 - Support ICSU’s main programmes:

- Conducted a brainstorming session on Future Earth in Asia in April 2013. The minutes of this meeting are currently being prepared and will be shared with the IPO for distribution to the SC.

Goal 5.2 – Establish IRDR National Committees:

- Established an IRDR NC at the Academy of Sciences in January 2013; however, LIU (ICoE-Taipei) was later informed that such a designation could not be assigned to the Academy and, as such, this activity could not progress as such.

Goal 6.1 Develop IRDR researchers to facilitate the promotion of interdisciplinary and policy-oriented science:

- The ICoE has an annual visiting scientist programme, from three months to one year, for disaster-related research. For instance, Dr Kuan-Hui Lin from Clark University has been funded for the period March 2013 to February 2014 to conduct landslide-related research.

2. Proposed ICoEs:

- **ICoE on Vulnerability and Resilience Metrics (ICoE VaRM), USA:** This ICoE, located at the Hazards and Vulnerability Research Institute (HVRI) at the University of South Carolina in Columbia, USA, was approved in January 2013, although the MOU has not been signed to date. ICoE VaRM will maintain separate financial responsibilities from IRDR. It is the ICoE’s overall vision to support the development of the science-basis for the methods, models and measurements that empirically support disaster risk management. The ICoE will expand on-going work for application to other world regions in an effort to develop a more integrated approach to measuring vulnerability, resilience and helping push forward the science basis for disaster risk management. See Document 9/6.1 for further description of the future work of ICoE VaRM.

Although ICoE VaRM has not been formally constituted, during the past six months it hosted three pre-doctoral students from Lisbon, Brazil and China, who are learning how to construct a social vulnerability index, using a methodology developed by HVRI and applying it to their individual countries. The students are writing articles on their findings and the ICoE will provide an overview article on how to customise a particular methodology developed for one country and make it applicable to another country. As a result of this work, the ICoE has received invitations to conduct workshops: one took place in Lisbon, while two are scheduled for Santiago, Chile and New Zealand.

- **ICoE on Community Resilience (ICoE CR), New Zealand:** The Joint Centre for Disaster Research, in partnership with the city of Wellington, proposed the establishment of an IRDR ICoE in Community Resilience (ICoE CR) located at the Joint Centre for Disaster Research at Massey University in Wellington, New Zealand (see Document 9/6.2) to explore the underpinnings of building the resilience of communities. The UN Habitat programme recently announced 10 cities of resilience, with Wellington being one of them as it is a city living with risk. Wellington has a population of 400,000, with active fault lines running throughout the length of the city, and sits underneath a locked subduction zone 20km off the coast. It is predicted that in the future the city will experience a tsunami similar to the 2010 Japan tsunami. The results of this proposed ICoE's research will also go towards assisting other parts of Oceania.

Upon consideration of the above proposals for the two new ICoEs, and there being no further discussions on the matter, the SC Members formally accepted the two centres as IRDR ICoEs. Formal documents will be forthcoming.

3. Possible ICoEs:

- **Colombia:** CARDONA informed the meeting that there have been discussions about the possibility of having an IRDR ICoE in the Institute of Environmental Studies (IDEA) at the National University of Colombia (UNC) in Manizales. The Institute is known locally and internationally for disaster risk management research, especially due to its involvement in the Comprehensive Approach for Probabilistic Risk Assessment (CAPRA) platform. However, due to the Institute's lack of a budget it is unable to fully comply with the criteria set forth in the IRDR ICoE terms of reference (ToR). CARDONA requested the SC's guidance on how the Institute could be considered an ICoE. JOHNSTON suggested that CARDONA develop a proposal to be considered by the SC before or at the 10th SC meeting. He also requested feedback from the SC Members on the current terms of reference (TORs) for ICoEs, for discussion at the 10th SC meeting.

The Issue of Branding Projects with the IRDR Logo

There was a general discussion about the branding of projects with the IRDR logo, as well as how to deal with potential requests from individuals and organisations on branding their projects as such. ROVINS informed the meeting that she is in receipt of two documents from ICSU to create templates for the Programme. One is a by-laws document that can deal with some of the Programme's process issues such as how SC Members and projects' working group co-chairs are chosen. The second is a projects charter that not only lays out work plans for these groups and their backgrounds, but can also be used to guide the process of, for example, branding a FORIN study with the IRDR logo. ROVINS noted that she has begun

drafting a by-laws document for IRDR. The SC will wait on these two documents before deciding on the issue of IRDR branding.

VI. IRDR's Regional Interactions

ISDR Asia Partnership (IAP)

ROVINS informed the meeting that IRDR was approached by the UNISDR Asian regional office in Bangkok to lead its Scientific, Academic and Research Stakeholders group, and attended the two planning meetings for the 5th Asian Ministerial Conference on Disaster Risk Reduction (AMCDRR), held in October 2012. Out of these meetings resulted the Ministerial Statement, the "Yogyakarta Declaration on Disaster Risk Reduction in Asia and the Pacific 2012" (see Document 9/5.1), which includes science within the preamble of the Statement. The Yogyakarta Declaration also includes 11 annexes of the Stakeholders' Declarations, of which Annex 10 is the statement of commitment from the Scientific, Academic and Research Stakeholders group. ROVINS noted that there are similarities between the Beijing Declaration and Annex 10 due to the deliberate attempt to build on existing declarations so as to continue the momentum behind these common concepts. The Statement also includes a specific call for supporting AIRDR. This was partially due to the release, at the event, of an Asian risk and vulnerability assessment report, which highlighted the urgent need for some baseline assessments of the current situation in the region. ROVINS suggested that AIRDR's co-chairs should think how best to take advantage of this to begin the Asian aspect of the regional assessment.

The IRDR also hosts the IAP's Scientific, Academic and Research Stakeholders group listserv on its website.

Establishment of the ICSU ROLAC Follow up Programme on Risk Management for the LAC Region

This meeting, attended by BRICEÑO and LAVELL, held in Panama from 21 to 22 March 2013, was a follow-up to the Regional Workshop on Disaster Risk Management in Latin America and the Caribbean, which took place from 3 to 5 September 2012, in Buenos Aires, Argentina. At the latter meeting, it was agreed that IRDR was the logical basis and framework to develop an integrated project in the LAC region. The meeting in Panama was therefore convened to put in motion the process towards developing this integrated project for the LAC region, with ICSU ROLAC as the lead. The meeting agreed to set-up a steering committee to lead the development of the project and to use the four IRDR projects as the basis for the regional programme. The first activity will be AIRDR.

ICSU Regional Office for Africa (ICSU ROA)

ROVINS informed the meeting that a conference call was held with the head of the ICSU Regional Office for Africa, Edith MADELA-MNTLA, and Katsia PAULAVETS from the ICSU Secretariat concerning the lack of communication between the overall IRDR programme and ICSU Africa. Since this meeting, Dr MADELA-MNTLA has put the IRDR in touch with the Head of ICSU ROA's Hazards Group, which will be starting a project in June or July 2013, building on the African Regional Implementation Workshop on Hazards

and Disasters, held in Dakar, Senegal, from 26 to 27 September 2012. IRDR has been asked to participate in this project. ROVINS is waiting on additional information about this project.

VII. Other Matters Discussed

73rd Annual Meeting of the Society for Applied Anthropology (SFAA)

OLIVER-SMITH provided the meeting with a summary of the Society for Applied Anthropology's (SFAA) 73rd annual meeting, which was held in Denver, Colorado, USA, from 19 to 23 March 2013. The organisers, in partnership with the Natural Hazards Center at the University of Colorado, USA, developed and included a programme on disaster research that resulted in 22 disaster-related sessions and 102 papers presented on disaster-related themes. Some of the themes included the gap between knowledge, policy and practice with regards to disasters; the role of community-based organisations (CBOs); and post-disaster community reconstruction and resettlement, to name a few.

He noted that the meeting was such a success that the SFAA's Executive Board has decided to include disaster-related research within the 2014 meeting. OLIVER-SMITH suggested IRDR consider participating in the SFAA's annual meetings to promote the IRDR agenda. To this end he will be proposing a one day FORIN workshop prior to the start of the SFAA's 2014 meeting.

UN Special Session on Water and Disaster

This was the first high-level United Nations (UN) General Assembly thematic event discussing issues at the nexus of water and disasters. The UN-Secretary General provided the opening remarks, while keynote addresses were provided by the HIH Crown Prince of Japan and HRH Willem-Alexander, The Prince of Orange, now the King of Netherlands.

TSUKAHARA reported that initially water and disasters was not an issue covered in the overall water issue. The High Level Expert Panel on Water and Disaster (HLEP) was developed in response to this issue and is composed of UN organisations, governments, NGOs and academics to examine the existing recommendations to determine ways to improve the probability of their implementation. One of the key messages from the thematic session is that water-related disasters, increasing in frequency and severity as the climate and human demographics shift, are a significant barrier to sustainable development. The most important target of HLEP therefore is the inclusion of water and disasters in the SDGs. The seventh World Water Forum will be held in Daegu-Gyeongbuk, Korea, from 12-17 April 2015.

Annex 1 – List of Meeting Documents

Symbol	Title or Description
9/1.1	List of Participants
9/1.2	Practical Arrangements
9/2.1	Summary Report of the Eighth Meeting of the Scientific Committee
9/3.1	IRDR Annual Report 2012
9/3.2	IRDR Strategic Plan 2013-2017
9/3.3	IRDR Conference 2014 Proposal
9/3.4	Executive Director's Report
9/4.1	ICSU Grant Application For LANDSCAPE-LAC Project
9/4.2	ICSU Grant Application For Mathematics of Climate Change, Related Natural Hazards and Risks Workshop
9/5.1	Yogyakarta Declaration on Disaster Risk Reduction in Asia and the Pacific 2012 and Annex 10
9/6.1	Proposal for Establishment of IRDR Centre of Excellence in Vulnerability and Resilience Metrics (ICoE VaRM), USA and Letter of Approval
9/6.2	Proposal for Establishment of IRDR Centre of Excellence on Community Resilience (ICoE CR), New Zealand
9/7.1	AIRDR Work Plan, IUGG Resolution and Extract from the EB108 Meeting
9/8.1	Draft Report on the Third Advanced Seminar for Forensic Investigations of Disasters (FORIN) held at first IUGG GRC Conference
9/8.2	List of FORIN Studies
9/9.1	Draft Programme for the World Social Science Seminar "Decision-making under conditions of uncertainty"
9/9.2	Risk Interpretation and Action Workshop Agenda, 16-17 May 2013, King's College London

Annex 2 – Action Items from the Ninth SC Meeting

No.	Action Items	Responsible Parties	Status
1.	Submit a proposal, for the consideration of the SC, for developing an IRDR ICoE in the Institute of Environmental Studies (IDEA) at the National University of Colombia (UNC) in Manizales.	CARDONA	
2.	Submit an Expression of Interest (EOI) to the IPO for the SC to consider Colombia's Risk Awareness Committee as an IRDR NC.	CARDONA	
3.	Submit proposal to SC, through IPO, about organising second DATA meeting before end-2013, utilising funds available in IRDR grants account, plus any additional amounts secured from IRDR/ICSU account.	DATA Co-Chairs	
4.	Rename "Sponsored Activities" section of IRDR website "Affiliated Activities."	IPO	
5.	Identify a speaker for the Mathematics of Climate Change, Related Natural Hazards and Risks Workshop.	IPO	
6.	Revise all documentation, including website, to reflect the change from "Working Groups" to "Projects."	IPO	
7.	Provide SC with proposal by LIU (IRDR ICoE-Taipei) for a new IRDR project titled "Vulnerability Assessments and Disaster Risk Reduction," for discussion at 10 th SC meeting.	IPO	
8.	Provide SC with drafts of process documents now being developed to guide discussions about IRDR branding at the 10 th SC meeting. They are: <ul style="list-style-type: none"> ▪ A by-laws document; and ▪ A working group or project charter document. 	IPO	
9.	Follow-up with IRDR ICoE-Taipei on the English version of FORIN study on Typhoon Morakot.	IPO	

No.	Action Items	Responsible Parties	Status
10.	Get a copy of the Chinese version of FORIN Report No. 1.	IPO	
11.	Follow-up with IRDR Japan on the planning for an IRDR international meeting in May 2015, in Tokyo.	IPO	
12.	Follow-up with IRDR Japan on the Japanese Government's decision on its research programme.	IPO	
13.	Follow up with CARDONA on establishing the Risk Awareness Committee, under Colombia's National Disaster Risk Management System Act, as NC Colombia.	IPO	
14.	Follow up with PELLING on the development of the Centre on Integrated Research on Risk and Resilience as a possible IRDR NC/ICoE.	IPO	
15.	Follow-up on the planning for an IRDR ICoE-Taipei's young scientist workshop on DRR/DRM in October 2013.	IPO	
16.	Follow-up with IRDR ICoE VaRM and ICoE CR for signed MOUs.	IPO	
17.	Complete scoping paper on IGPH and AIRDR for ICSU Executive Board.	IPO (JER)	
18.	Organise four small workshops related to each IRDR Project the day before the start of the 10 th SC meeting.	IPO and IRDR China	
19.	Include a capacity building event before the start of the IRDR Conference 2014, involving either young scientists or practitioners across China to expose them to integrated disaster risk and the IRDR programme.	IPO and RADI (CAS-TWAS)	
20.	Share minutes of brainstorming session on Future Earth in Asia, held in April 2013, with the SC.	IRDR ICoE-Taipei	
21.	Provide IPO with 18-page summary of discussions from the second GAR2015 scoping meeting held in San José, Costa Rica	LAVELL	

No.	Action Items	Responsible Parties	Status
	in April 2013.		
22.	Provide IPO with a summary of involvement in a DFID/UK Research Councils consultation to formulate the latter's new research programme on disaster risk reduction.	PELLING	
23.	Provide IPO with a short article about RIA.	PELLING	
24.	RIA to find out more information about FLACSO's regional project on risk analysis and decision-making, and how to get involved.	PELLING	
25.	Provide to IPO a report on the RIA London workshop, 16 to 17 May 2013.	PELLING	
26.	Review IRDR ICoE Terms of Reference (ToR) for discussion at the 10 th SC meeting.	SC Members	