



**Integrated Risk Science:
A Tool for Sustainability**

IRDR CONFERENCE 2014

June 7-9, 2014 Beijing, China

Programme

FRIDAY, 6 June 2014

08:30 - 17:30

R E G I S T R A T I O N

SATURDAY, 7 June 2014

09:00 – 10:15

OPENING CEREMONY (Convention Hall No. 2)

Chair: *David M. JOHNSTON (New Zealand)*

- *Qin ZHANG, Vice President and Executive Secretary, China Association for Science and Technology (CAST) (China)*
- *Huadong GUO, Director General, Institute of Remote Sensing and Digital Earth (RADI), Chinese Academy of Sciences (CAS) (China)*
- *Steven WILSON, Executive Director, International Council for Science (ICSU) (France)*
- *Feng Min KAN, Head, UN International Strategy for Disaster Reduction (UNISDR) Regional Office for Asia and the Pacific (Thailand)*
- *Hanlin LI, Director General, National Institute of Social Development, Chinese Academy of Social Sciences (CASS) for the International Social Science Council (ISSC) (China)*

10:15 – 10:30

Coffee and Tea Break

10:30 – 12:00

PLENARY I: TRANSLATING SCIENCE INTO ACTION (Convention Hall No. 2)

Chair: *Sálvano BRICEÑO (France)*

Keynote Address:

- **From Knowledge to Practice: Building Back Stronger after Haiyan with the Aid of Science**
[Loren LEGARDA, Senator of the Republic of the Philippines and UNISDR Champion for Disaster Risk Reduction and Climate Change Adaptation for Asia-Pacific \(Philippines\)](#)

12:00 – 13:30

Lunch

13:30 – 15:15

B R E A K O U T S E S S I O N S

<p>13:30 – 15:15</p>	<p align="center"><u>Assessing Risk</u> (Room 201A)</p> <p>Chair: <i>Irasema ALCÁNTARA-AYALA</i> <i>(Mexico)</i></p> <ul style="list-style-type: none"> • Global Risk Model: a Fully Probabilistic Seismic and Tropical Cyclone Wind Risk Assessment <i>Omar Darío CARDONA</i> <i>(Colombia)</i> • Level of Seismic Exposure of Health Facilities in Mexico City, Mexico <i>Sonia MORÁN RODRÍGUEZ</i> <i>(Mexico)</i> • Assessment of Multi-Hazard Risk Toward Disaster Risk Reduction by Design <i>Kenji SATAKE</i> <i>(Japan)</i> • The Establishment of a Natural Disaster Risk Assessment Model for Mountain Scenic Areas in China: a Case Study of Mount Huangshan <i>Junxiang ZHANG</i> <i>(China)</i> 	<p align="center"><u>Community Disaster Reduction</u> (Room 201B&C)</p> <p>Chair: <i>Djillali BENOUAR</i> <i>(Algeria)</i></p> <ul style="list-style-type: none"> • Colombo City Without Floods: Forced Relocation of Underserved Settlers in the City of Colombo as a Flood Risk Reduction Strategy – the Case of Three Flood Risk Reduction Projects <i>Nishara FERNANDO</i> <i>(Sri Lanka)</i> • The Importance of Community Participation in Disaster Risk Management <i>Erica Akemi GOTO</i> <i>(Brazil)</i> • Built-in Risk: Linking Housing Concerns and Flood Risk in Subsidised Housing Settlements in Cape Town, South Africa <i>Robyn PHAROAH</i> <i>(South Africa)</i> • A Need-Based Approach for Exploring Vulnerability and Response to Disaster Risk in Rural Communities in Low Income Countries <i>David O. YAWSON</i> <i>(Ghana)</i> 	<p align="center"><u>Risk Interpretation and Action</u> (RIA) (Room 201D)</p> <p>Chair: <i>Mark PELLING</i> <i>(UK)</i></p> <ul style="list-style-type: none"> • Anticipating Interpretations and Reactions to Earthquake Early Warnings <i>Ann BOSTROM</i> <i>(USA)</i> • Emergency Management Decision-Making in the Laboratory: the Case of Uncertain Volcanic Advice <i>Emma HUDSON-DOYLE</i> <i>(New Zealand)</i> • Promoting “Behavioural Disaster Management” Toward Disaster Risk Reduction by Design <i>Haruo HAYASHI</i> <i>(Japan)</i> • A New Focus on Risk Reduction: an Ad-Hoc Decision Support System for Humanitarian Relief Logistics <i>Frank SCHÄTTER</i> <i>(Germany)</i> 	<p align="center"><u>Empowering Local Officials</u> (Room 311)</p> <p>Chair: <i>Virginia JIMENEZ-DIAZ</i> <i>(Venezuela)</i></p> <ul style="list-style-type: none"> • Promotion of Grass Root Innovations for Disaster Risk Reduction and Climate Change <i>Reneema HAZARIKA</i> <i>(India)</i> • Helping Districts Reduce Risk in Indonesia <i>Dwikorita KARNAWATI</i> <i>(Indonesia)</i> • Guidance on Guidance: Providing Useable Natural Hazard Management Science for Local Government <i>Wendy S.A. SAUNDERS</i> <i>(New Zealand)</i> • Riverine Flood and Tropical Storm Risk Assessment in Timor-Leste <i>Soravit VITOONTUS</i> <i>(Thailand)</i>
<p>15:15 – 15:45</p>	<p>Coffee and Tea Break</p>			

<p>15:45 – 17:30</p>	<p><u>Risk Reduction and Sustainable Development</u> (Room 201A)</p> <p>Chair: <i>S.H.M. FAKHRUDDIN</i> (Thailand)</p> <ul style="list-style-type: none"> • Dependencies Among Extremes: the Use of Copulas for Risk Management <i>Stefan HOCHRAINER-STIGLER</i> (Austria) • Examining the Nexus between Disaster Risk Management and Climate Change Adaptation: Evidence from Caribbean Coastal Tourism <i>Roché R.T. MAHON</i> (Trinidad and Tobago) • Linking Disaster Risk Reduction to Sustainable Development <i>Kenichi TSUKAHARA</i> (Japan) • Framework of Disaster Risk Reduction Investment Accounts for Development and its Application to Pakistan <i>Muneta YOKOMATSU</i> (Japan) 	<p><u>Integrated Risk Sciences</u> (Room 201B&C)</p> <p>Chair: <i>Ferruccio FERRIGNI</i> (Italy)</p> <ul style="list-style-type: none"> • Embedded Disaster Risk Management in Adaptation Targeted Policy and Practice in Large Deltas of Africa <i>Shuaib LWASA</i> (Uganda) • Integrated Risk Research in Motozintla, Chiapas, Mexico <i>David A. NOVELO-CASANOVA</i> (Mexico) • Building More Resilient Megacities in the Developing World: Exploring the Case Studies of Mexico City, Beijing, Lagos and New Delhi <i>Fabiola SOSA-RODRIGUEZ, 2013</i> World Social Science Fellow (Mexico) • Economy and Culture of Recovery: Differences in Banda-Aceh and Tohoku <i>Kuniyoshi TAKEUCHI</i> (Japan) • Turning Black into Green: Innovative Approaches in Disaster Risk Governance and Green Growth <i>Qian YE</i> (China) 	<p><u>Forensic Investigations of Disasters (FORIN)</u> (Room 201D)</p> <p>Chair: <i>Anthony OLIVER-SMITH</i> (USA)</p> <ul style="list-style-type: none"> • Migration, Urbanisation and Landslide Disasters in Contemporary Latin America: a Mexican Case Study in the Development and Social Construction of Risk <i>Irasema ALCÁNTARA-AYALA</i> (Mexico) • Hurricane Katrina and the Forgotten Coast of Mississippi <i>Susan L. CUTTER</i> (USA) • Stakeholder Interactions for Near Real-Time Forensic Analysis of Disasters <i>Bijan KHAZAI</i> (Germany) • Causal Loss Analysis: a New Approach to Understand Risk Driving Factors <i>Susan BRINK</i> (Germany) 	<p><u>Risk Reduction Planning</u> (Room 311)</p> <p>Chair: <i>Ann BOSTROM</i> (USA)</p> <ul style="list-style-type: none"> • According to Plan? Disaster Risk Knowledge and Organisational Responses to Heatwave Risk in London, UK <i>Thomas ABELING</i> (Germany) • Multi-Scale Policy Implementation for Natural Hazard Risk Reduction: Preliminary Results <i>Hsiang-Chieh LEE 2013, World Social Science Fellow</i> (Chinese Taipei) • A Seismic Hazard-Sensitive Model for Urban Land-Use Planning <i>Mohsen GHAFORY-ASHTIANY</i> (Iran) • Research on Policy of Reconstruction after Wenchuan Earthquake <i>Mingming XIANG</i> (China)
<p>19:00</p>	<p>W E L C O M E B A N Q U E T</p>			

SUNDAY, 8 June 2014

09:00 – 10:30	PLENARY II: THE ROLE OF SCIENCE IN THE 2015 AGENDA (Convention Hall No. 2) Chair: <i>Susan L. CUTTER (USA)</i> Keynote Addresses: <ul style="list-style-type: none">• The Road to HFA2: Can Science Help to Inform Policy and Practice? <i>Virginia MURRAY, Consultant in Global Disaster Risk Reduction, Public Health England (PHE) (UK)</i>• Intergovernmental Processes and the Framing of Disaster Risk Reduction <i>Mark PELLING, Professor of Geography, Director of Research and Deputy Head, Department of Geography, King's College London (UK)</i>
10:30 – 11:00	Coffee and Tea Break
11:00 – 12:15	PLENARY III: WATER (Convention Hall No. 2) Chair: <i>Sálvano BRICENO (France)</i> Keynote Address: <ul style="list-style-type: none">• Water and Emergencies: The Impact of Thirst <i>Nathaniel FORBES, Director, Forbes Calamity Prevention Pte Ltd. (Singapore)</i>
12:15 – 13:30	Lunch
13:30 – 15:15	B R E A K O U T S E S S I O N S

<p>13:30 – 15:15</p>	<p><u>Water and Disasters</u> (Room 201A)</p> <p>Chair: <i>S.H.M. FAKHRUDDIN</i> (Thailand)</p> <ul style="list-style-type: none"> • Managing Watershed as a Strategy for Disaster Risk Reduction in the Semi-Arid Zones of Senegal <i>Mateugue DIACK (Senegal)</i> • Impact of Climate Change on Extreme Water Related Events: a Case Study of Ta Chin River Basin, Thailand <i>Sathaporn MONPRAPUSSORN (Thailand)</i> • Why Disaster Risk Reduction in the Horn of Africa Remain Elusive: the Case of IGAD <i>Wondwosen SEIDE (Republic of Djibouti)</i> 	<p><u>Science and National Politics</u> (Room 201B&C)</p> <p>Chair: <i>Virginia JIMENEZ-DIAZ</i> (Venezuela)</p> <ul style="list-style-type: none"> • Volcanoes on Borders: Potentially Explosive Geopolitical Agents <i>Amy DONOVAN (UK)</i> • Winds of Change: Voter Blame and Storm Gudrun in the Historical 2006 Regime Shift of the Swedish Parliamentary Election <i>Lina M. ERIKSSON (Sweden)</i> • Community-led Disaster Risk Management: a Maori Response to Otautahi (Christchurch) Earthquakes <i>Christine M. KENNEY (New Zealand)</i> 	<p><u>Indigenous and Vulnerable Populations</u> (Room 201D)</p> <p>Chair: <i>Ann BOSTROM (USA)</i></p> <ul style="list-style-type: none"> • Gender in the Pacific Islands: Towards Climate and Disaster Risk Reduction and Resilience <i>Cheryl L. ANDERSON (USA)</i> • Triangulation of Research, Policy and Indigenous Knowledge: Pathway for Sustainable Disaster Risk Reduction in Nigeria <i>Catherine V. NNAMANI (Nigeria)</i> • Emergency Preparedness and Perceptions of Vulnerability among Disabled People Following the Christchurch Earthquakes <i>Suzanne R. PHIBBS (New Zealand)</i> • Integrating Indigenous Knowledge into Decision and Policy-Making for Disaster Risk Reduction (2013 World Social Science Fellows' Topic) <i>Simon LAMBERT (New Zealand)</i> 	<p><u>Capacity Building</u> (Room 311)</p> <p>Chair: <i>Kuniyoshi TAKEUCHI (Japan)</i></p> <ul style="list-style-type: none"> • Integrating Disaster Risk Science in the Algerian Higher Education System: Challenges and Perspectives <i>Djillali BENOUAR (Algeria)</i> • The 2010-2013 Monsoon Floods in Pakistan: Meteorological Advancements and Required Improvements <i>Farrukh CHISHTIE (Pakistan)</i> • Skills and Capacity Shortages in South African Disaster Risk Management Entities: Observations from the USAID/ACDS Disaster Risk Management Training Project <i>Christo COETZEE (South Africa)</i> • Research on Capacity Building for Disaster Risk Reduction <i>Zoe SCOTT (UK)</i> • Research on Theories and Practices of Disaster Education <i>Ying ZHANG (China)</i>
<p>15:15 – 15:45</p>	<p>Coffee and Tea Break</p>			

<p>15:45 – 17:30</p>	<p><u>Science and the Post-2015 Natural Hazard Agenda</u> (Room 201A)</p> <p>Chair: <i>Shuaib LWASA (Uganda)</i></p> <ul style="list-style-type: none"> • Political Dimensions amongst Researchers and Practitioners Gauging Community Disaster Resilience at a Provincial Scale <i>Thomas J. HUGGINS (New Zealand)</i> • Anthropological Expertise and Risk Communication: Technical Knowledge Confronted in the Courtroom after the 2009 L'Aquila Earthquake <i>Mara BENADUSI (Italy)</i> • Defining Disaster: the Need for Harmonisation of Terminology <i>Lidia MAYNER (Australia)</i> • Needs of National Disaster Statistics on Damages and Losses for Making Better Policy and Setting Disaster-Related Goals and Targets in the Post-HFA and Post-MDGs <i>Yuichi ONO (Japan)</i> 	<p><u>Risk Indexing</u> (Room 201B&C)</p> <p>Chair: <i>Omar Darío CARDONA (Colombia)</i></p> <ul style="list-style-type: none"> • Validation of the Social Vulnerability Index in a Cross-National Context <i>Christopher T. EMRICH (Presented by Susan L. CUTTER) (USA)</i> • Evaluating Natural Disaster Risk in Cambodia: Exploring Asset Risk and Production Interdependence <i>Junko MOCHIZUKI (Austria)</i> • Urban Seismic Risk Index for Medellín: a Probabilistic and Holistic Approach <i>Mario-Andrés SALGADO-GÁLVEZ (Spain)</i> • Comparing Impacts of Long and Short Term Disasters on Urban-Rural Systems in India <i>Nitin SRIVASTAVA (Japan)</i> 	<p><u>The Gap Between Disaster Knowledge, Policy and Practice (SFAA Topical Interest Group on Disasters)</u> (Room 201D)</p> <p>Chair: <i>Anthony OLIVER-SMITH (USA)</i></p> <ul style="list-style-type: none"> • Modernity, Epistemology, Economy and Ecology: Understanding the Complexity of 'The Gap' <i>Roberto E. BARRIOS (USA)</i> • The Gap between Knowledge, Policy, and Practice that Result in Natural Hazard Events Becoming Disasters: a View from Looking at Four Groups of Stakeholders <i>Stephen BENDER (USA)</i> • Bridging the Chasm: Illustrating Issues and Delineating Approaches to Bringing Knowledge into the Increasingly Template Policies of International and National and NGO Disaster Aid <i>Susanna HOFFMAN (USA)</i> • Is International Advocacy Impeding Accomplishments in National Disaster Risk Management? <i>Terry JEGGLE (USA)</i> • Policy-Makers, Researchers and Locals: Some Issues in Translating Disaster <i>Peter RUDIAK-GOULD (Canada)</i> 	<p><u>Data and Technology</u> (Room 311)</p> <p>Chair: <i>Sisi ZLATANOVA (Netherlands)</i></p> <ul style="list-style-type: none"> • Emerging and Trustful Citizen-Scientist Technologies for Disaster Data Collection and Mapping <i>ZhiQiang CHEN (USA)</i> • Data Integration and Information Fusion toward Disaster Risk Reduction by Design <i>Toshio KOIKE (Japan)</i> • Determination of Hazard, Vulnerability and Risk by Means of the Application of GIS Tools and Multi-Criteria Methods: the Colombia-Spain Study Cases <i>Nelson RANGEL (Colombia)</i> • Mapping Seismic Risk of Mandalay City, Myanmar: a Scenario Earthquake Approach <i>Peeranan TOWASHIRAPORN (Thailand)</i>
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MONDAY, 9 June 2014

09:00 – 10:30	<p>PLENARY IV: SCIENCE AND THE MEDIA PANEL DISCUSSION (Convention Hall No. 2) Chair: <i>Susan L. CUTTER (USA)</i></p> <p>Members of the Panel:</p> <ul style="list-style-type: none">• <i>Kathleen KOCH, freelance journalist, author and former CNN Correspondent (Moderator) (USA)</i>• <i>Miles O'BRIEN, Science Correspondent for PBS NewsHour, freelance broadcast and web journalist (USA)</i>• <i>David M. JOHNSTON, Chair, IRDR Science Committee and Director, Joint Centre for Disaster Research, Massey University (New Zealand)</i>• <i>Stephen BENDER, former Division Chief, Department for Sustainable Development (DSD), Organization of American States (OAS) (USA)</i>• <i>TBA</i>
10:30 – 11:00	Coffee and Tea Break
11:00 – 12:30	<p>PLENARY V: RESILIENCY AND RECONSTRUCTION (Convention Hall No. 2) Chair: <i>Kuniyoshi TAKEUCHI (Japan)</i></p> <p>Keynote Addresses:</p> <ul style="list-style-type: none">• The Politics of Disaster Recovery <i>Bill NICOL, Management Strategist and Former Australian Government Senior Adviser to the Indonesian Government for Tsunami Recovery (Australia)</i>• For Accelerating the Reconstruction from the Great East Japan Earthquake <i>Makoto MIZUTANI, Counsellor, Reconstruction Agency, Government of Japan (GoJ) (Japan)</i>
12:30 – 13:30	Lunch
13:30 – 15:15	<p style="text-align: center;">B R E A K O U T S E S S I O N S</p>

13:30 – 15:15

Communications and the Media
(Room 201A)

Chair: *Mark PELLING (UK)*

- **Environmental Information Portals for Local Stakeholders: Lessons Learned from Different Projects in Asia**
Malte AHRENS (Germany)
- **Not Only News, Not Only After: Problems and Suggestions for a More Effective Contribution of Media to Disaster Reduction**
Ferruccio FERRIGNI (Italy)
- **Communications Influences on Decision Making in Disaster Recovery and Reconstruction: Implications for RIA Framework**
Kuan-Hui Elaine LIN, 2013 World Social Science Fellow (Chinese Taipei)
- **Promoting Science Communication: Panos Eastern Africa's Experience**
Masaba David WANALABI (Uganda)
- **The Role of Newspapers in Disaster Risk Dissemination: Review from Indonesia**
Ramanditya WIMBARDANA (Indonesia)

Meteorological Issues
(Room 201B&C)

Chair: *Irasema ALCÁNTARA-AYALA (Mexico)*

- **Impact of Flash Flood Disaster in Uttarkhanda, India: Implications to Socio-Economic Settings**
Nadimikeri JAYARAJU (India)
- **Climate-Induced Disaster Management among Affected Communities: Exploring the Nuances between the Duo in Nigeria**
Babatunde OMOTOSHO (Nigeria)
- **Integration of Hydrological-Flood Model and Dynamic Economic Model**
Aina OTA (Japan)
- **The Assessment of the Correlation between Extreme Precipitation Events and Geological Disasters**
Feng QIANG (China)

CAS-TWAS Special Session on Earth Observations for Disaster Risk Reduction in Developing Countries
(Room 201D)

Chair: *Sisi ZLATANOVA (Netherlands)*

- **CAS-TWAS Disaster Framework for Building DRR in Developing Countries**
Fang CHEN (China)
- **Earth Observations for the Mitigation of Natural Disasters: the Role of the Group on Earth Observations**
Francesco GAETANI (Italy)
- **Space Technology Contribution in Disaster Risk Reduction: UN-SPIDER Efforts**
Longfei LIU (China)
- **The Global Facility for Disaster Reduction and Recovery (GFDRR): Mainstreaming Disaster Risk Reduction in Development**
David ROGERS (USA)
- **UNESCO's Work on the Use of Remote Sensing Tools in DRR for Developing States**
Hans THULSTRUP (China)

Committee on Data for Science and Technology (CODATA) Session: Opportunities for Innovative Use of Data in Disaster Research
(Room 311)

Chair: *Omar Darío CARDONA (Colombia)*

- **Improving Data on the Built Infrastructure for Disaster Management: Progress and Opportunities**
Robert CHEN (USA)
- **Sustainable Data Infrastructures For Integrated Disaster Science Research**
Sara GRAVES (USA)
- **Big Data Potentials for Early Warning and Crises Management**
Milan KONEČNÝ (Czech Republic)
- **The Data Application of SJ-9 Satellite in Disaster Monitoring**
Yiwei LIU (China)
- **A Gap Analysis of Using Social Science Data in Natural Disaster Research (Representing CODATA LODGD Task Group)**
Xinlu XIE (China)

15:15 – 15:45	Coffee and Tea Break
16:00 – 17:00	<p>PLENARY VI: MOVING FORWARD (CONVENTION HALL NO. 2) Chair: <i>Sálvano BRICEÑO (France)</i></p> <ul style="list-style-type: none">• Introducing the International Study Conference on Disaster Risk Reduction (Tokyo, Japan, 14-16 January 2015) <i>Toshio KOIKE, Chairman, IRDR National Committee Japan (IRDR Japan)</i>• Conference Summary, Outcomes and Way Forward <i>David M. JOHNSTON, IRDR Science Committee Chair (New Zealand)</i>
END OF 2ND IRDR CONFERENCE 2014	