Dealing with Disasters (DwD)

with the 4th Conference of the International Society for **Integrated Disaster Risk Management (IDRiM)**

Conference Programme

From Opportunity to Action: Bridging the Gap between Disaster Reduction and Development through Science(s), Technology and People Centred Actions

4 - 6 September 2013 Northumbria University, Newcastle upon Tyne, UK





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1 Introduction

A purpose of the conference is to build on opportunities presented by science and technology, political will and behaviour change in addressing current crises and risks faced by future generations. Whilst knowledge about the nature and context of disasters has proliferated, many potential actions for integrated disaster reduction remain far from realised. The disjuncture between existing opportunities and actions both present and anticipated is a complex problem of the disaster and development nexus. Driven by common objectives of survivability, there is a need to bridge gaps between disaster reduction and development through varied types of science (natural, social and others), technologies and people centric actions. This requires 'smart awareness', motivation and vision to enable combined disaster reduction and sustainable development at local and global levels. The conference aims to address opportunities for action through varied state of the art contributions from disaster science, technology, policy and practice. It is also open to expertise less conventionally recognised within this field intending to stimulate a next generation of ideas and actions for disaster reduction.

This conference combines two well known conference series into one uniquely integrated collaborative event. This builds on collaboration between the Disaster and Development Network (DDN) based at Northumbria University and the International Society for Integrated Disaster Risk Management (IDRiM) with support from multiple institutions around the world. Based on globally shared issues of the need for a means to action, the event is to stimulate greater dedication to addressing ongoing gaps there are between disaster reduction and development actions through varied scientific approaches, technology and socio-centric experiences. The event will also assist individuals and institutions to move forward in confronting disaster reduction ideas in the context of mounting expectations surrounding Hyogo + 10 events leading to revision of its strategy at Yokohama in 2015.

The topics that emerged in the preparation for the event led to papers and sessions informed by cross-cutting aspects of disaster management, sustainable development, resilience building, vulnerability reduction, quantitative modeling and visualization, community based strategies, governance, climate and adaptation, integration science, disaster communication, humanitarianism, innovative technologies, logistics and policy including dialogues from different disciplines related to risk. These cross-cutting themes from academic, policy and practice initiatives are for the purpose of this conference considered interrelated, mutually informative, and presenting many challenging questions key to moving from opportunity to action. The conference focus is maintained by reflecting on how theory, method and implementation can make a difference to the future of dealing with disasters.

Structure of the event

The conference includes six plenary sessions and 27 parallel sessions including five special postgraduate oral sessions. In total the event comprises over 160 presentations with inputs from over 30 countries. Posters are displayed throughout the event and are accompanied by a special Young Scientists / Postgraduate competition.

Plenary sessions reflect the following progression of the conference topic:

- Current progress in Disaster and Development policy, practice and research
- Facing changing challenges of practice and policy
- Rethinking development through integrated risk reduction
- People, systems and ideas
- · Actions and hope at the science and people centred interface

A call for papers was released late 2012 together with suggested topics for guidance to be adapted subject to demand and comment during the run up to the event. Most of the inputs featured over the three days itself were peer reviewed by at least three of our 33 member international scientific committee. The finalised list of parallel sessions included in the programme is as follows:

- · 'Natech' (natural and technological) risk management: the state of the art after one decade
- · Modelling values and judgments for risk management
- · Modeling and case studies of integrated risk governance paradigm for very large-scale disasters
- · Engaging demographic difference and change in disaster and development
- · Inter-sectoral disaster and development
- Progress in UK Emergency Management
- FORIN: Forensic investigations of disasters
- · Frameworks for the measurement, modelling and design of resilience strategies
- · Bridging gaps in disaster risk stabilisation through economic analyses
- Climate, development and ideas
- Same dogs, same tricks: Examining the humanitarian discourse
- Survivors centred approach toward long-term disaster recovery: collaborative practices and action research after the 3.11 earthquake and tsunami in Japan
- Developing public-private-civil societal-academic partnerships to improve Disaster Risk Reduction knowledge sharing
 and decision making
- Community based Disaster Risk Reduction and Governance
- · Visualisation, simulation and mapping of reactions and ideas
- X5 Early Researcher / Young Scientist / Postgraduate parallel sessions
- Early Researcher / Young Scientist / Postgraduate posters session and competition
- The risk governance, scientific advisors, science and policy interface
- Education, communication, and development in disaster risk reduction
- Logistics, continuity and resilience
- Bringing creative and integrated responses to displacement
- Cities, risk and infrastructure technologies
- Crisis informatics, knowledge management and decision making
- Disaster education, learning and response

2 Conference Outline

Date:	September 4th -6th September		
Venue:	City Campus East, Northumbria University, Newcastle upon Tyne, UK		
Accommodation:	mmodation: Northumbria University accommodation and local hotels		
Host:	Northumbria University, and the International Society for Integrated Disaster Risk Management (IDRiM)		
Chairs:	Professor Andrew Collins , Leader of the Disaster and Development Network, Department of Geography, Faculty of Engineering and Environment, Northumbria University		
	Professor Norio Okada, President of the IDRiM Society		
Local Organizer:	Disaster and Development Network, Department of Geography, Faculty of Engineering and Environment, Northumbria University		
Local Organizer: Partners:	Disaster and Development Network, Department of Geography, Faculty of Engineering and		

Conference Features:

The conference includes plenary, parallel, poster, panel and young scientists / doctoral sessions.

A full set of abstracts is provided at the event. Post conference peer reviewed proceedings of full papers will be produced post-conference. There are number of journal publication opportunities that participants will be kept informed about.

Committees:

DwD-IDRiM 2013 Conference Logistics Group:

- Gemma Hollywood (Northumbria)
- Ailsa Riddell (Northumbria)
- Janet Young (Northumbria)
- Marta Pyrek (Northumbria)
- Miyauchi Tomoko (Kyoto)

DwD-IDRiM 2013 Conference Organising Committee:

- Ana Maria Cruz
- Andrew Collins
- Bernard Manyena
- Chika Udeaja
- Chris Hagar
- Hirokazu Tatano
- Idelia Ferdinand
- Janaka Jayawickrama
- Kay Rogage
- Lei Zhou
- Mohsen Ashtiany
- Muneta Yokomatsu
- Norio Okada
- Reinhard Mechler
- Richard Kotter
- Sheik Mehdee Mohammad
- Simon Taylor
- Srinath Perera
- Stefan Hochrainer
- Tao Ye
- Victor Samwinga

Conference Assistants

- Daniel Walsh
- Keiko Kitajima
- Alison Stretton Downs
- Rita Njuguna
- Emma Melton

DwD-IDRiM 2013 Scientific Advisory Committee

- Adam Rose (University of Southern California, USA)
- Ana Maria Cruz (University of Bordeaux, France)
- Andrew Collins (Northumbria University, UK)
- Aniello Amendola (International Institute for Applied Systems Analysis (IIASA), Austria)
- Ben Wisner (Oberlin College, USA)
- Bijya Anand Misra (New Delhi, India)
- Charles Scawthorn (Kyoto University, Japan)
- David Alexander (University College London, UK)
- Dilanthi Amaratunga (Salford University, UK)
- Djillali Benouar (University of Bab Ezzouar (USTHB), Algeria)
- Douglas Paton (University of Tasmania, Australia)
- Eser Cakti Durukal (Bogazici University, Turkey)
- Geoff O'Brien (Northumbria University, UK)
- Giuliano Panza (Absus Salam Int. Centre for Theoretical Physics, Italy)
- Haresh Shah (WSSI and RMS, USA)
- Heike Egner (University of Klagenfurt, Austria)
- Hirokazu Tatano (Kyoto University, Japan)
- Hiroyuki Kameda (National Institute for Earth Science and Disaster Prevention (EDM-NIED), Japan)
- Joanne Linnerooth-Bayer (International Institute for Applied Systems Analysis, Austria)
- Julie Mennell (Sunderland University, UK)
- Kaoru Takara (Kyoto University, Japan)
- Kevin Hannam (Leeds Metropolitan University, UK)
- Manas Chatterji (Binghamton University, USA)
- Maureen Fordham (Northumbria University, UK)
- Mohsen Ashtiany (Int. Institute of Earthquake Engineering and Seismology, Iran)
- Norio Okada (IDRiM Society President and Dwansei Gakuin University), Japan
- Paul Kovacs (Western University, Canada)
- Peijun Shi (Beijing Normal University (BNU), China)
- Peter Glaves (Northumbria University, UK)
- Phil O'Keefe (Northumbria University, UK)
- Salvano Briceno (IRDR, Venezuela)
- Samantha Jones (Northumbria University, UK)
- Slobodan P. Simonovic (University of Western Ontario, Canada)
- Srinath Perera (Northumbria University, UK)
- Tomohide Atsumi (Osaka University, Japan)

3 Conference Programme

From Opportunity to Action: Bridging the Gap between Disaster Reduction and Development through Science(s), Technology and People Centred Actions

Tuesday 3rd September 2013

6	ain foyer of City Campus East
17:00 – 18:00 IDRiM Society Board M	
City Campus East	

Wednesday 4th September, 2013 (Day One)

08:00 - 08:45	Registrations in main Foyer of City Campus East – Arriving period – Tea and Coffee
08:45 - 09:20	Opening Session: Lecture Theatre 001 Chair: Glen McHale , Executive Dean, Faculty of Engineering and Environment, Northumbria University
	<i>Welcome Address:</i> Lucy Winskell, Pro Vice-Chancellor (Business and Engagement), Northumbria University (10 min)
	International Society of Integrated Disaster Risk Management (IDRiM) Introduction: Norio Okada, President of the IDRiM Society (10 min)
	<i>Conference Theme, Background and Context:</i> Andrew Collins , Disaster and Development Network (DDN), Northumbria University (15 min)
09:20 - 10:45	Plenary Session One: Lecture Theatre 001 'Setting the Scene – Current progress in Disaster and Development Policy, Practice and Research' Chair: Andrew Collins
	<i>Presentation 1:</i> Margareta Wahlström, Special Representative of the United Nations Secretary-General (RSG) for Disaster Risk Reduction and Head of UNISDR, Geneva
	 Presentation 2: Strengthening Local Risk Management and mainstreaming Disaster Risk Reduction for sustainable development João Ribeiro, Bonifacio Antonio, National Institute of Disaster Management (INGC), Mozambique and Titus A. Kuuyuor, United Nations Development Programme (UNDP), Mozambique
	Presentation 3: From Disaster Risk Management to Quantitative Disaster Resilience: A paradigm shift, Slobodan P. Simonovic, University of Western Ontario, Canada
	Questions and discussion (minimum 10 mins)
10:45 - 11:00	Tea and Coffee

11:00 - 13:00

Parallel Sessions

Lecture Theatre 003	Seminar Room 009	Seminar Room 024	Seminar Room 025	Seminar Room 221
		Seminar Room 024	Seminar Room 025	Seminar Room 221
Theme: 'Natech' risk management: the state of the art after one decade Chairs: Ana Maria Cruz, Kyoto University, Japan and Elizabeth Kraussmann, European Commission Joint Research Centre, Italy	Theme: Modelling values and judgments for risk management Chair: Gilberto Montibeller, London School of Economics, UK	Theme: Modeling and case studies of integrated risk governance paradigm for very large-scale disasters Chair: Peijun Shi, Beijing Normal University, China and Carlo Jaeger, Postdam Institute for Climate Impact Research, Germany	Theme: Engaging demographic difference and change in disaster and development Chair: Jessica Hartog, Help Age International	Theme: Inter- sectoral disaster and development Chair: William Siembieda, California Polytechnic State University, USA
 Introductory study on Disaster Risk Assessment and Area Business Continuity Planning in industry aggiomerated areas in the ASEAN Hitoshi Baba, Itsu Adachi, Hiroshi Takabayashi, Noriaki Nagatomo, Shiro Nakasone and Hideaki Matsumoto, Japan International Cooperation Agency (JICA) Damage Analysis for industrial installations triggered by Tsunami of the 2011 Great East Japan Earthquake Junlei Yu, Akihiko Hokugo and Tomoaki Nishino, Kobe University, Japan Natech risk governance in the European Union Elisabeth Krausmann, European Commission, Joint Research Centre, Italy Complex Model for Risk Assessment and Treatment in Industrial Processes Katarína Hollá and Jozef Ristvej, University of Žilina, Slovakia Natechs and risk governance Ana Maria Cruz, Kyoto University, Japan 	 Adversarial risk analysis in defense resource allocation for sports mega-events Marcelo Zawadzki and Carmen Belderrain, Aeronautics Technological Institute, Brazil Location analysis for pre-positioning disaster relief supplies in Brazil Irineu Brito Jr., University of Sao Paulo, Adriana Leiras, Pontifical Catholic University of Rio de Janeiro, Brazil, Paulo Gonçalves, Univesitá della Swizzera Italiana, Switzerland and Hugo Yoshizaki, Universidade de São Paulo, Brazil Paper Title: Choice of transportation in the aftermath of a terrorist attack: the case of the 7/7 London Bombings Barbara Fasolo, London School of Economics, Melody Zhifang Ni, Imperial College and Lawrence D. Phillips, London School of Economics, UK Multi-impact spatial risk analysis for resource allocation decisions Valentina Ferretti, Polytechnic University of Turin, Italy and Gilberto Montibeller, London School of Economics, UK Developing Risk Management Support Systems for the Prioritization of Emerging Health Threats Gilberto Montibeller, London School of Economics, L. Alberto Franco, Loughborough University, UK and Victor Del Rio Vilas, Pan American Health Organisation, Brazil 	 Peijun Shi, Beijing Normal University, Beijing, China Challenges of Bridging Sciences and Policy for Integrated Risk Governance, Yanli Lu and Qian Ye, Beijing Normal University, Beijing, China Risk assessment model for natural disaster based on urban land use unit Wei Xu, Beijing Normal University, Ministry of Civil Affairs and Ministry of Education, Zhihui Gu, Shenzhen University, Juan Du, Ying Li, Xiaodong Ming, Beijing Normal University, Ministry of Civil Affairs and Ministry of Education, Yi Ge, Nanjing University, Peijun Shi, Beijing Normal University, Ministry of Civil Affairs and Ministry of Education, China An approach to adaptive co-ordinated emergency response of rapidly evolving large- scale unprecedented events using agent based modelling and simulation with mathematical optimisation based decision support Graham Coates, Glenn I, Hawe, Duncan T. Wilson and Roger S. Crouch, University of Durham, UK 	 The strong arms – the role of the young in dealing with disaster risk C.W.J. De Milliano, University of Groningen, The Netherlands Snips and snails and puppy dogs tails vs Sugar and spice and all things nice: Same disaster different reaction? Joelle Yap, Nanyang Polytechnic, School of Health Sciences, Singapore Developing a rural model for disaster prevention planning in depopulated marginal villages using health care services Keiko Kitagawa, Saga University, Changwan Han, University of the Ryukyu, Kazunori Hokao and Koichiro Ogushi, Japan Gender and disaster recovery after Typhoon Morakot in Taiwan Demographic change after the 2011 Great East Japan earthquake: impacts of interregional migration Kazuyoshi Nakano, Central Research Institute of Electric Power Industry (CRIEPI), Japan 	 Socio-economic consequences of the 2008 Wenchuan Earthquake in Wolong National Nature Reserve, China Wei Liu and Stefan Hochrainer-Stigler International Institute for Applied Systems Analysis (IIASA), Austria Institutional Reforms of Nuclear Emergency Preparedness in Japan and its Challenges from the Viewpoint of Stakeholder Involvement Shin-etsu Sugawara, Central Research Institute of Electric Power Industry (CRIEPI), Japan Power outages, extreme events and health: a systematic review of the literature from 2011 -2012 Chaamala Klinger, Owen Landeg and Virginia Murray, Public Health England, UK Application of Catastrophe Loss Modelling Technology for Design of Affordable Property Insurance Schemes in Developing Countries Mohammad R Zolfaghari, K.N. Toosi University of Technology, Iran Social responses to natural disasters: the experience of vulnerable communities Tracey McIntosh, The University of Auckland, New Zealand

13:00 - 14:00	Lunch				
14:00 – 15:30	'Facing Char	Plenary Session Two: Lecture Theatre 001 'Facing Changing Challenges of Practice and Policy' Chair: Hirokazo Tatano, Kyoto University, Japan			
	ear Fire and Rescue				
		Farlane, Assistant Direct	interoperability and integ or, Civil Contingencies Se		
	I Thomas , Director ect Manager, KfW				
	Questions ar	nd discussion (minimum ⁻	15 mins)		
15:30 – 15:45	Tea and Cof	fee			
15:45 – 17:45	Parallel Ses	sions			
Lecture Theatre 003	Seminar Room 009	Seminar Room 024	Seminar Room 025	Seminar Room 221	
Theme: Progress in UK Emergency Management	Theme: FORIN: Forensic investigations of disasters	Theme: Frameworks for the measurement, modelling and design of resilience strategies	Theme: Bridging gaps in disaster risk stabilisation through economic analyses	Theme: Climate, development and ideas Chair: Bernard	
Chair: Brian Ward, National Resilience, UK and Trevor Tague , Fire and Rescue National Resilience Team, Tyne and Wear Fire and Rescue Service	Chair: Bob Alexander , Faculty of the 2012 IRDR and START Advanced Institute on FORIN	Chairs: Adam Rose, University of Southern California, USA and Kurt Peterson, University of Lund, Sweden	Chair: Paul Kovacs , Western University, Canada	Manyena, Newcastle upon Tyne, UK	
1. <i>To follow</i> Brian Ward, National Resilience, UK	1. Disaster Response and Adaptive Capacity of Upland Communities in the Face of Increasing Climate Risk: A Discussion of Changing Livelihoods, Land Use, and Natural Resources Management in Northern Thailand Sopon Naruchaikusol , Stockholm Environment Institute – Asia, Malin Beckman , Stockholm Environment Institute – Asia-Office and Swedish Agricultural University (SLU) and Junko Mochizuki , University of	1. Collective anticipation and the dual nature of resilience Henrik Tehler and Kurt Petersen, Lund University, Sweden	1. A CGE Study of Economic Restoration after a Natural Disaster Masato Yamazaki, Yoshinori Sone, Atsushi Koike, Nagoya University and Hirokazu Tatano, Kyoto University, Japan	1. Climate variability and its consequence effects in Mozambique Joao Ribeiro, National Institute of Disaster Management (INGC), Mozambique and Titus A. Kuuyuor, United Nations Development Programme (UNDP), Mozambique	
2. UK capacity to respond to international and UK level disasters Sean Moore, National Resilience Fire and Rescue Services, UK	Hawaii at Manoa 2. Poor Governance Causing Vulnerabilities and Converting Hazards into Disasters: 2010 floods, Kot Addu, District, Muzaffargarh, Pakistan Sarwar Bari, Pattan Development Organization, Pakistan	2. An economic framework for the development of a resilience index for business recovery, Adam Rose, University of Southern California, USA and Elisabeth Krausman, JRC, European Commission	2. The role of in- situ measurements of volcanic ash concentrations in preventing economic disaster due to ash clouds. Jonas Eliasson, University of Iceland, Nario Yasuda, University of Kyoto, Konradin Weber, Andreas Vogel, University of Applied Sciences, Germany and Porgeir Palsson, Reykjavik University, Iceland	2. Drought Insurance for extensive livestock farmers based on Standard Precipitation Index as a tool for drought risk reduction Andries Jordaan , University of the Free State, South Africa	

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Lecture Theatre 003	Seminar Room 009	Seminar Room 024	Seminar Room 025	Seminar Room 221
3. <i>History of Civil</i> <i>Resilience in the UK</i> Helen Hinds , Newcastle City Council, UK	3. Recovery from the 3.11 East Japan Earthquake Disaster Norio Maki, Kyoto University, Japan	3. Short and long term time dependencies of socio-economic dimensions after catastrophes: An empirical macro- economic analysis Stefan Hochrainer- Stigler , IIASA - International Institute for Applied Systems Analysis, Austria	3. A prototype of urban economic model for flood disaster impact analysis Satoshi Tsuchiya, Tottori University, and Hirokazu Tatano , Kyoto University, Japan	3. Climate change adaptation options in flood management: ideal and reality Junichi Yoshitani , Kyoto University, Japan
4. The role of social media technologies in shifting the resilience goalposts Ian Rufus, Public Health England, UK	4. Decision-making, policy choices and community rebuilding after the Tohoku disaster Junko Mochizuki , International Institute of Applied Systems Analysis (IIASA), Austria	 4. Statistical analysis of production capacity and sales losses in industrial sectors caused by a large-scale flood disaster Yoshio Kajitani, Central Research Institute of Electric Power Industry, Hirokazu Tatano and Lijiao Yang, Kyoto University, Japan 	4. Disaster risk reduction investments accounts for development: model and case study of Pakistan Muneta Yokomatsu, Kyoto University, Japan, Katsumi Wakigawa, Japan Institute of Country- ology and Engineering, Hiroyuki Wada, Pacific Consultants Co., Ltd., Kimio Takeya, Japan International Cooperation Agency (JICA), Tetsuya Okayasu, Toshihiro Sonoda, Japan Institute of Country-ology and Engineering, Hiroyuki Takamatsu, Hiroaki Ishiwata, Pacific Consultants Co., Ltd., Yusuke Amano, Noriaki Nagatomo, Junko Mimaki, JICA, Japan	4. Flood shelters in Bangladesh: The users' perspective Fuad H. Mallick, BRAC University, Bangladesh
5. Addressing the risk of wildfires through partnerships Patrick Edwards, Northumberland Fire and Rescue Service, UK	5. Practically Addressing Conceptual Issues in the Use of Scenario Analysis for Forensic Investigations of Disasters (FORIN) Bob Alexander , Rural Livelihood Risk Management Consulting & Faculty of the 2012 IRDR and START Advanced Institute on FORIN	5. Reducing the impact of flood events upon business: continuity management and the small and medium sized enterprise Martina McGuinness , University of Sheffield, UK	5. Economic Impact Assessment of industry without double counting losses taking account of renewal investment possibility in the future Hirokazu Tatano , Kyoto University, Japan	5. Ideas and Policy in Disaster Research John M. Weiner and John J. Walsh, Vanderbilt University, USA
6. <i>The balance between</i> <i>security and community</i> <i>engagement</i> Alan Robson , Tyne and Wear Fire and Rescue Service, UK				

18:00 – 20:00

Reception at Conference Venue

Thursday 5th September (Day Two)

09:00 - 10:40	Plenary Session Three: Lecture Theatre 001 'Rethinking Development through Integrated Risk Reduction' Chair: Norio Okada, Kwansei University, Japan
	Presentation 1: Lowering disaster risk through acceptance of institutional limits, William J. Siembieda, California Polytechnic State University, USA
	Presentation 2: Complexity of disaster system and its integrated risk analysis, Peijun Shi, Ming Wang, Jing'ai Wang, Lili Lu and Wenfang Chen, Beijing Normal University, China
	Presentation 3: Information and Knowledge Management for Disaster Risk Reduction (IKM4DRR) – the community, the framework and related UNISDR tools and activities, Sarah Wade-Apicella, The UN Office for Disaster Risk Reduction (UNISDR)
	Questions and discussion (minimum 15 mins)
10:40 - 11:00	Tea and Coffee
11:00 - 13:00	Parallel Sessions

Lecture Theatre 003	Seminar Room 009	Seminar Room 024	Seminar Room 025	Seminar Room 221
Theme: Same dogs, same tricks: examining the humanitarian discourse Chair: Janaka Jayawickrama, Northumbria University, UK	Theme: Survivors centred approach toward long-term disaster recovery: collaborative practices and action research after the 3.11 earthquake and tsunami Chair: Tomohide Atsumi, Osaka University, Japan	Theme: Developing public-private-civil societal-academic partnerships to improve DRR knowledge sharing and decision making – examples and discussion about PPP in national "IKM4DRR" approaches Chair: Roland Nussbaum, Mission Risques Naturels (MRN), France and Paul Kovacs, Western University, Canada	Theme: Community based Disaster Risk Reduction and Governance Chair: Manas Chatterji, Binghamton University, State University of New York, USA	Theme: Visualisation, simulation and mapping of reactions and ideas Chair: Kay Rogage , Northumbria University, UK
Panel: 1. Panel Overview: Double negative of humanitarian assistance Phil O'Keefe and Janaka Jayawickrama, Northumbria University, UK	1. Disaster Volunteers in Japan after 3.11 Earthquake and Pay-It- Forward Network Tomohide ATSUMI, Osaka University, Japan	1. Information and Knowledge Management for Disaster Risk Reduction (IKM4DRR) – the community, the framework and related UNISDR tools and activities, Sarah Wade-Apicella , The UN Office for Disaster Risk Reduction (UNISDR)	1. Development of disasters? How development strategies increase disaster risk in upland communities in Southeast Asia Malin Beckman, Stockholm Environment Institute - Asia and Swedish University of Agriculture Sciences, Sweden	1. Preparing for Emergencies through Stimulating Simulation Kay Rogage, Northumbria University, UK

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Lecture Theatre 003	Seminar Room 009	Seminar Room 024	Seminar Room 025	Seminar Room 221
2. Socio-economic inequalities in adapting to climate change Leanne Wilson, Northumbria University	and visions for a long- term recovery in Noda	2. The Canadian model for public/private partnership in disaster risk reduction Paul Kovacs , Western	2. The political economy of community disaster management assets: a case study of the farm community in Sussex county, Delaware	2. Applying a novel three-dimensional digital geography methodology with open data for flooding disaster risk reduction
3. There is no Effectiveness in Humanitarian Assistance without Culture	Hachinohe National College of Technology, Japan	University, Canada Following three presentations are interlinked:	Yvonne Rademacher , University of Delaware, USA	Shih-Chun Candice Lung and Yi-Cong Kuo, Academia Sinica, Taiwan
Joanne Rose , Northumbria University				
4. The Story of the Caribbean				
Idelia Ferdinand , Northumbria University				
	3. Empirical research for the Reconstruction Plan that considers QOL from the Great East Japan Earthquake: A case study of "Team All Hirosaki" Young-Jun Lee, Hirotsugu lijima, Hirosaki University and Hiroaki Sugiura, Aichi University, Japan	3. The context and the development project of a national PPP alliance for DRR knowledge sharing, by a kernel of data producers, involving the French State authorities (national and territorial) as well as private stakeholders, including (re)insurance companie Roland Nussbaum , MRN and National Observatory for Natural Hazards (ONRN), France	3. Building community awareness on early warning systems for disaster risk reduction. case study: Somesul Cald Valley, Cluj, Romania Emil Roman, Lucrina Ştefănescu, Kozma Kis Elisabeta-Edita, Dan Chiribucă, Babeş-Bolyai" University, Adriana Dîncu, Romanian Strategy and Evaluation Institute, Viorel Arghiuş and Alexandru Ozunu, Babeş-Bolyai" University, Romania	3. Remote Sensing Data for Disaster Micro- Insurance and Growth related Applications: A case study on Smallhold-farmers in Ethiopia Stefan Hochrainer- Stigler, International Institute for Applied Systems Analysis (IIASA), Austria
	4. Study on "Revitalization Curves" from the 2011 Tohoku earthquake: Visualization of Community Revitalization Processes Takumi Miyamoto , Kyoto University, Japan	4. The involvement of end users in the governance of the PPP alliance, by AFPCN a civil society association, in close connection to the French National DRR platform François Gerard, French National DRR Platform, France (AFPCN), France	4. An analysis of revitalization process of the affected areas of the Mid Niigata Prefecture Earthquake in 2004 Fumihiko Inagaki and Seiji Kamimura , Nagaoka University of Technology, Japan	4. Overcoming Obstacles to Mapping for Disaster Preparedness in East Africa Dave Farthing and Mark Ware, University of South Wales, UK

Lecture Theatre 003	Seminar Room 009	Seminar Room 024	Seminar Room 025	Seminar Room 221
5. Community vs Institution Resilience Ibrahim Almarzouqi, Northumbria University 6. Community Collaboration: Experience from New Deal for Communities Geoff O'Brien, Northumbria University 7. "Insider" and "Outsider" Collaboration: the Case of Step-By- Step Studio Jeremy Balmer and Janaka Jayawickrama, Northumbria University	5. The bottom-up type of counterpart assistance for long-term restoration after the East Japan Earthquake: A case of 'Team North Rias' in Noda village Motohiko Nagata, Kyoto University, Japan	5. The specific role of academics, as scientific observers and expert users of the system, Pr Patrick Pigeon, University of Savoie, France	5. Microfinance and Natural Disasters: How to Make Poor Less Vulnerable Muhammad Ali Qamar, COMSATS Institute of Information Technology, Pakistan and Sameen Masood, Punjab University, Pakistan	5. Advanced decision- aiding methods for natural risk management in a context of imperfect information Jean Marc Tacnet, National Research Institute of Science and Technology for Environment and Agriculture, France
			6. Community Governance to Promote Implementation of Local Activities in Revitalization Process – Leadership, Prioritization and Compartment of Activities Mamoru Yoshida , Kumamoto University, Japan	

13:00 - 14:00

Lunch

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14:00 - 15:10

Early Researcher / Young Scientist / Postgraduate Parallel Sessions

Lecture Theatre 003	Seminar Room 009	Seminar Room 024	Seminar Room 025	Seminar Room 221
Chair: Muneta Yokomatsu , Kyoto University, Japan	Chair: Yanli Lu , Beijing Normal University, China	Chair: Srinath Perera , Northumbria University, UK	Chair: Victor Samwinga , Northumbria University, UK	Chair: Stefan Hochrainer- Stigler ,International Institute for Applied Systems Analysis (IIASA), Austria
1. Towards a collaborative approach between public and private stakeholders to improve standardized knowledge on the damage caused by flood events David Bourguignon, University of Montpellier III and Association of French Insurance Undertakings for Natural Risk Knowledge and Reduction, France	1. Transfiguration of local artifact and dynamics of residents' practice in disaster recovery process Hitomu Kotani and Muneta Yokomatsu , Kyoto University, Japan	 Risk communication with Tsunami Evacuation Evaluation System: A Case Study of Kuroshio- Town, Kouchi Prefecture, Japan Fuko Nakai, Kyoto University, Japan 	1. Assessment of the warning system against floods in the Lower Siret River (Romania) Florence Salit, University of Paris Diderot and University of Bucharest, L. Zaharia, University of Bucharest, Romania and G. Beltrando, University of Paris, France	1. Coeliac Disease - An emerging global public health problem? Assessing awareness for disaster risk reduction Georgina Livingstone, University of Northumbria, UK
2. Social capital in disasters Idelia Ferdinand , Northumbria University, UK	2. Psychosocial issues and lived experiences of (adolescent) young women and girls after the October 2005 earthquake in Pakistan Seema Ahmed and Maureen Fordham, Northumbria University, UK	2. Assessing Risk of Rice Yield Loss by Flooding Using Process- Based Models of SWAT and MCWLA — A Pilot Study in Zhengshui Watershed located in the Middle-Lower Reaches of Yangtze River Pin Wanga, Yi Chena , and Zhao Zhanga , Beijing Normal University, China	 Quantitative multi- hazard risk assessment with vulnerability surface and hazard joint return period Xiaodong Ming, Wei Xu, Ying Li, Juan Du, Beijing Normal University, Baoyin Liu, University of Leeds, UK, Peijun Shi, Beijing Normal Univesity, China 	2. Disasters, insurance and climate change – challenging the insurance industry and modelling future action: looking at the risque and embracing opportunity to ensure disaster resilience and affirmative action Rachel Anne Carter , Deakin University, Australia
3. Simulation of flight passengers affected by the impacts of volcanic eruption: A case study of Sakurajima volcano	3. Government management systems for natural disaster relief in China, as oriented by the needs of the victims	3. Organizing Lessons and Problems for Tsunami Disaster Reduction into "Crossroad" Game Format	3. A rapid assessment method of earthquake casualty Rong Liu and Jifu Liu , Beijing Normal	3. Disaster Risk and Effect of Informal Insurance on Human Capital Formation in Rural Areas of Developing Countries
Tetsuya Tamaki , Kyoto University, Japan	Ying Wang, Zhenhua Zou and Juan Li, Beijing Normal University, China	Yasuhito Kawata , Kyoto University, Japan	University, China	Shiyu Zhang and Muneta Yokomatsu, Kyoto University, Japan
4. Are People ready to cope with the environmental risks from water and air pollution in China? A national questionnaire survey on risk perceptions and responses Yi Chen, Xiao Song and Zhao Zhang, Beijing Normal University, China	4. Believing a cyclone early warning: Insights into the life of the coastal Bangladesh through a gendered lens Shaikh Mehdee Mohammad , Northumbria University, UK	4. How many storms? Estimation of historical tropical cyclone rate for coastal China Xiaoning Wu and Weihua Fang, Beijing Normal University, China	4. Role of concern assessment in flood risk management Junho Choi, Subhajyoti Samaddar and Hirokazu Tatano, Kyoto University, Japan	 4. Enabling sustainable development through networks of collective intelligence Chrysostomy Maria Diakou and Angelika I. Kokkinaki, University of Nicosia, Cyprus
5. Disaster Risk Reduction Education in Vietnam: A policy review Tong Thi My Thi and Rajib Shaw, Kyoto University, Japan	5. Doing Single-person drill in local community for risk management and disaster education Yingying Sun, Katsuya Yamori, Kyoto University, Seiji Kondo, Japan Broadcasting Corporation and Takumi Miyamoto, Kyoto University, Japan	5. Smartphone technologies as a support to better inform and protect people in case of flash floods? Jules Kouadio, Johnny Douvinet and Loic Grasland, University of Avignon, France	5. Reviewing and visualising natural hazard interactions within a multi-hazard framework Joel C. Gill and Bruce D. Malamud, King's College London, UK	5. Practice of disaster education based on Legitimate Peripheral Participation theory Takuya Iwahori , Kyoto University, Japan

Lecture Theatre 003	Seminar Room 009	Seminar Room 024	Seminar Room 025	Seminar Room 221
6. Effect of Cyclone Aila on health care system at Gabura Union, Shyamnagar Upazila, Satkhira, Bangladesh		6. The networked volcanic hazard: a spatiality of actors, assemblages and information technology		
Sheikh Rahman , Northumbria University, UK		Daniel Beech, Aberystwyth University, Deborah Dixon, University of Glasgow, Carina Fearnley and Michael Woods, Aberystwyth University, UK		

15:10 - 16:15	Early Researcher / Young Scientist / Postgraduate Posters and Competition Chairs: Muneta Yokomatsu, Kyoto University, Japan, Yanli Lu, Beijing Normal University, China and Srinath Perera, Northumbria University, UK
15:45 – 16:15	Tea and Coffee as part of this session
16:15 - 17:45	Plenary Session Four: Lecture Theatre 001 'People, Systems and Ideas' Chair: Sálvano Briceño, Vice-chair, IRDR Science Committee, Venezuela
	Presentation 1: Can societies learn from disasters and catastrophes?, Heike Egner, University of Klagenfurt, Austria, Marén Schorch, University of Siegen and Martin Voss, Free University of Berlin, Germany
	Presentation 2: People centric techno-legal regime for IDRiM: scenario writing in the 21st Century, Bijay Anand Misra, New Delhi, India
	Presentation 3: Utilization of disaster lessons learned by the 2011 Great East Japan Earthquake for next catastrophic disasters, Yoshiaki Kawata, Kansai University, Japan
	Questions and discussion (minimum 15 mins)
17:45 – 19:00	IDRiM Society General Assembly
19:30 – 21:30	Conference Dinner - The Great Hall, Sutherland Building, Northumbria University

Friday 6th September (Day Three)

09:00 - 10:40	Plenary Session Five: Lecture Theatre 001 'Actions and Hope at the Science and People Centred Interface' Chair: Adam Rose , University of Southern California, USA
	Presentation 1: Do you seriously wish to be a humanitarian worker, Phil O'Keefe, Northumbria University, UK
	Presentation 2: Dilanthi Amaratunga, Salford University, UK
	Presentation 3: Visualisation and public participation approaches in post disasters situations: experiences in UK post flood areas, Peter Glaves, Northumbria University, UK
	Questions and discussion (minimum 15 mins)
10:40 - 11:00	Tea and Coffee
11:00 – 13:00	Parallel Sessions

Lecture Theatre 003	Seminar Room 009	Seminar Room 024	Seminar Room 025	Seminar Room 221
Theme: The risk governance, scientific advisors, science and policy interface	Theme : Education, communication, and development in disaster risk reduction	Theme: Logistics, continuity and resilience Chair: <i>TBC</i>	Theme: Bringing creative and integrated responses to displacement	
Chair: Katsuya Yamori, Kyoto University Japan and David Alexander , University College London, UK	Chair: Kim Hagen , Open University, UK		Chair: Bijay Anand Misra , New Delhi, India	
1. Science and Disaster Management in the dock: A contextual analysis of the L'Aquila Trial, 2009-2012 David Alexander,	1. Good vibrations in risk communication: How music can be used to engage people in disaster risk reduction (DRR)	1. Resilient health care systems of the future Phil Storr , NHS England, UK	1. Conditions of necessity for assistance at disaster in evacuation and rescue plans Eizo Hideshima, Yukiho Miyabe and	Reserved Fifth Open Parallel Session
University College London, UK	Bob Alexander, Rural Livelihood Risk Management Consulting, Douglas Paton and Kirby Clark, University of Tasmania		Yuuki Nakayama, Nagoya Institute of Technology, Japan	
2. Risk management from a legal and governance perspective Michael Eburn, The Australian National University, Australia	2. Being seen, being heard and getting things done: gendered communication strategies for and by women and girls in disaster risk reduction (DRR)	2. A critical review of the use of supply chain analysis in disaster management, Manas Chatterji, Binghamton University, State University of New York, USA and Ganesh Menon, University of	2. Constraints to response and post disaster reconstruction: case study of mount Cameroon eruptions Evarist Anu Mbakem, Northumbria University, UK	
	Maureen Fordham, Northumbria University, UK	Kerala Trivandrum, India		
3. Housing beyond the shelter: the case for increasing housing donors' accountability with their post-typhoon Durian dwelling units in Albay, Philippines Sylvester Shaun D. Seno , Technological University of the Philippines	3. Cultural communication strategies in disaster risk reduction (DRR) Kim Hagen , Open University, UK	3. Study on the quantification of international containerized cargo demand and the estimation of alternative port/route after large scale disasters Yasuhiro Akakura, Kenji Ono, Kyoto University and Tomihiro Watanabe, National Institute for Land and Infrastructure Management, MLIT,	 3. Issues on long- term and widespread evacuees by the Great East Japan Earthquake and Fukushima nuclear accident Yoko Matsuda, Kwansei Gakuin University, Japan 	

Lecture Theatre 003	Seminar Room 009	Seminar Room 024	Seminar Room 025	Seminar Room 221
4. Dealing with Disasters: Some Warnings from Science and Technology Studies (STS) Steve Matthewman , University of Auckland, New Zealand	4. Sexual and Gender identities in the Margins: Narratives on disaster risk reduction (DRR) from the Asia-Pacific Kristinne Sanz , Newcastle University, JC Gaillard , University of Auckland, New Zealand	4. Recent structural change of supply chain and post-disaster risk management in Japan Kenji Ono, Yasuhiro Akakura, Kyoto University, Masami Kanda, Josai International University, Masatoyo Ishihara Shihara, Kinki Regional Development Bureau, Ministry of Land, Infrastructure, Transport and Tourism, Japan	4. Community resilience after disasters: social capital and social networks in post-tsunami and post-earthquake Indonesia Ugo Guarnacci, University of Reading, UK	
5. Featured Open Debate: Are Disaster Scientists Accountable for Protection? All participants	5. <i>TBC</i> Ben Wisner , Oberlain College, USA	5. Community restoration/relocation planning model for safety, convenience and sustainability Makoto Okumura , Jinyong Kim , Tohoku University and Kazuaki Okubo , Saitama University, Japan	5. Efficiency improvement on humanitarian logistics in the aftermath of a large- scale disaster Hideyuki Ito , P&I Logistics co., Ltd., Wisinee Wisetjindawat , Nagoya Institute of Technology and Muneta Yokomatsu , Kyoto University, Japan	
		6. The business continuity of micro- enterprises affected by Tsunami and effectiveness of business support provided Lalith Welemadage , Northumbria University, UK		

13:00 - 14:00

Lunch

14:00 - 16:00

Parallel Sessions

Lecture Theatre 003	Seminar Room 009	Seminar Room 024	Seminar Room 025
Theme : Cities, risk and infrastructure technologies Chair: Peter Taylor , Northumbria University, UK	Theme: Crisis informatics, knowledge management and decision making Chair: Chris Hagar, San Jose State University, USA	Theme: Disaster education, learning and response Chair: Rebecca Strachan , Northumbria University, UK	
1. Estimation of Seismic Site Response and Its Correlation with Damage Distribution Due to Padang Earthquake September 30 th , 2009	1.Strengthening community resilience efforts and social consolidation in disasters: Exploring the roles of public libraries	1. Development of Disaster Reduction Education Tool and Program using a Disaster Reduction Technology Database	Reserved Fourth Open Parallel Session
Januar H. Setiawan, Robby Marjiyono, Kamawan Setianegara and Asdani Soehaimi, Ministry of Energy and Mineral Resources, Indonesia	Chris Hagar , San Jose State University, USA	Yukiko Takeuchi, Hiroaki Negishi, Hiroyuki Kameda and Kaoru Takara, Kyoto University, Japan	
2. City Emergency Preparedness: Assessment Status and Action Plan (ASAP) Jostacio M. Lapitan, World Health Organization (WHO) Kobe Centre for Health Development, Japan	2. Perceived ambiguity of earthquake and house destruction risk Toshio Fujimi , Kumamoto University, Masahide Watanabe , Osaka University of Economics and Ryuji Kakimoto , Kumamoto University, Japan	2. From Disaster Education to Disaster Co-learning: A Case Study from a Coastal Small Town in Japan Hideyuki Shiroshita , Kansai University, Japan	

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	Lecture Theatre 003	Seminar Room 009	Seminar Room 024	Seminar Room 025
	3. The «territoire-étagé» as an engineering tool to act on vulnerability of metropolitan areas Guézo Bernard , CERTU, France	3. Fragmentation of knowledge for disaster risk reduction in integration to climate change adaptation Rafael Spiekermann and Stefan Kienberger , University of Salzburg, Austria	3. A curriculum development on disaster training course: DITAC project Kubilay Kaptan, Ozden Timurlenk Celik, Onur Yilmaz, Ugur Kavlak, Istanbul Aydin University, Turkey, A. Khorram- Manesh, Pre-hospital and Disaster Medicine Centre, Sweden, Philipp Fischer, Deike Heselmann, UKBH University Clinic, Germany Olivera Lupescu, Christina Patru, Clinical Emergency Hospital, Romania, Pier L. Ingrassia, Università del Piemonte Orientale, Italy, Walter J. Ammann, Marc Stal, Global Risk Forum GRF Davos, Switzerland, et al.	
	 4. Risk assessment model for natural disaster based on urban land use unit Wei Xu, Beijing Normal University, Ministry of Civil Affairs and Ministry of Education, Zhihui Gu, Shenzhen University, Juan Du, Ying Li, Xiaodong Ming, Beijing Normal University, Ministry of Civil Affairs and Ministry of Education, Yi Ge, Nanjing University, Peijun Shi, Beijing Normal University, Ministry of Civil Affairs and Ministry of Civil Affairs and Ministry of Education, China 	4. Can we blame friends and neighbours for low household preparedness? A Social Network Approach on Community's Flood Preventive Behaviour Subhajyoti Samaddar, Kyoto University, Bijay Anand Misra, New Delhi, India, Hirohiko Ishikawa, and Hirokazu Tatano, Kyoto University, Japan	4. Factoring Impacts Associated with Public Warning Paradigm John J. Walsh, Jr., Vanderbilt University, USA	
		5. Crisis knowledge management and social media technologies: conceptual framework and survey of current practices Ouejdane Mejri and Michalis, Solomontos, Politecnico di Milano, Italy	5. Human experience and response to natural warning signs of tsunamis: applications for risk management based on Canterbury earthquakes 2010/11 Matthias J.M. Dorfstaetter, Vienna Lincoln University, New Zealand	

16:00 – 16:15	Tea and Coffee	
16:15 - 16:50	Plenary Session Six: Lecture Theatre 001	
	Facilitated Group Discussion Chairs: Andrew Collins et al. Topic: "To the Future of Bridging the Gap between Disaster Reduction and Development through Science(s), Technology and People Centred Actions"	
16:50 – 17:00	Closing: Rebecca Strachan , Associate Dean, Faculty of Engineering and Environment and Conference Chairs – Lecture Theatre 001	

Associated meetings and events during DwD2013 / IDRiM 2013 include:

- IDRiM Society Board Meeting, 3rd September
- IDRiM Society General Assembly, 5th September
- Meeting of the Japan-UK Disaster Risk Reduction Study Programme, 5th September
- Meeting of the Global Summit of Research Institutes for Disaster Risk Reduction, 6th September
- Meetings of the 'Disaster and Development Network', 'Disaster and Development Alliance' and 'Disaster and Development Centre Online' Initiatives take place throughout the event and will be also convened at the venue post event

The British Festival of Science (BSF) hosted by Newcastle Science City, Newcastle and Northumbria Universities takes place in Newcastle 7th – 12th September. Delegates of DwD-IDRiM 2013 are encouraged to collect information that will be available at the DwD-IDRiM 2013 event or source this online and may wish to stay in the city for this.



4 Conference Guidelines

Oral Presentations

All presentations will need to be concise and to the point. The maximum length of a plenary presentation is 25 minutes. The maximum length of parallel session presentations will be strictly kept to 20 minutes. For the case of the YSS/Postgraduate sessions the maximum is 10 minutes. The timing is crucial so that there is time in every session for questions and open debate. PowerPoint facilities are provided in all session rooms. If using this, you should bring your presentation on a USB device for uploading in the room it will take place in prior to the start of the session. Conference assistants will be on hand to begin uploading these as from the opening of registration on Tuesday 3rd September.

Posters

Posters should conform to the broad guidelines that were sent out, being A1 in dimension. All materials will be provided for hanging the posters on the display boards that are set up in the main foyer or the venue on the first morning of the event. All posters should be displayed throughout the whole three days where possible. Assistants will be on hand to orientate the positioning of posters. Chairs of the YSS / Postgraduate Session will coordinate for the use of YSS/Postgraduate posters in the YSS/Postgraduate session taking place in the same location on the 5th September and any matters relating to the associated competition for those.

5 General Information

Contact Numbers

For conference specific queries, contact the Events Team on

+44 (0) 191 227 4394

City Campus East Reception +44 (0) 191 227 3900

Northumbria University Security +44 (0) 191 227 3999

Northumbria University Switchboard +44 (0) 191 232 6002

For travel queries:

Newcastle Central Station: National Rail Enquiries +44 (0) 845 748 4950

Newcastle International Airport: Customer Information +44 (0) 871 882 1121

Flight Information +44 (0) 871 882 1131

If feeling unwell

You can call NHS Direct Helpline on 111 for advice

Taxi numbers

Taxi Services: NODA +44 (0) 191 222 1888

Airport Taxis +44 (0) 191 214 6969

Blueline Taxis +44 (0) 191 262 6666

Mobile phones

We ask that you switch off mobile phones when you are in the conference sessions.

Internet access

The main conference venue has wi-fi access. A wireless network key, username and password will be provided for each delegate.

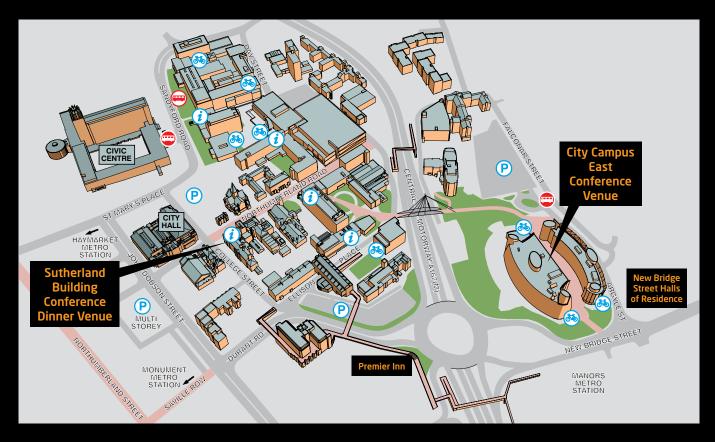
- Click on the Wireless Network Connection icon to the bottom right of your screen – You will be able to see a variety of wireless networks available – Click on NU Visitors and Click CONNECT
- Enter the Network Key provided
- Then click Connect
- · Your screen will indicate that you are connected
- Open your web browser and click OK and Yes on the Security Alerts
- Please read the information on the Visitors Login page before logging in
- Then enter the username and password provided and click SUBMIT
- At the Security Alert click Yes
- The Northumbria University homepage will appear and you can continue using the Internet in the usual way.

Conference Dinner

The conference dinner on Thursday 5th September is taking place in the Great Hall, Sutherland Building. Please arrive for 7.30pm.

ATM Machine

The nearest ATM machine is located in the main foyer of City Campus East, the conference venue.



Contact Information

Conference website: www.northumbria.ac.uk/dwd-idrim2013 Email: sz.dwdconf@northumbria.ac.uk

Northumbria University Disaster and Development Network (DDN)

Department of Geography Faculty of Engineering and Environment B201, Ellison Building Newcastle upon Tyne NE1 8ST United Kingdom

Telephone: +44(0)191 227 4215 Website: www.northumbria.ac.uk/ddn

IDRiM Society website: http://idrim.org Email: society@idrim.org

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