
International Society for Integrated Disaster Risk Management



IDRiM Newsletter

Issue 7, March 2014



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1. IDRIM NEWS

IDRiM Society elections held in the Fall of 2013

This fall the IDRiM Society held elections for President and 12 members of the Board of Directors. The IDRiM Society welcomes the newly elected President and Board of Directors who will start their mandate on the 1st of April 2014. The elected President and members are:

PRESIDENT

Norio Okada

BOARD OF DIRECTORS

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Stefan Hochrainer-Stigler

Hans Peter Nachtnebel

Peijun Shi

Ana Maria Cruz Naranjo (Secretary)

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Mohsen Ghafory-Ashtiany

Katsuya Yamori

Hirokazu Tatano (Vice-President)

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Building Disaster Resilient Communities The 5th Conference of the International Society for Integrated Disaster Risk Management (IDRiM 2014)

30th October – 1st November 2014

Western University, London, Ontario, Canada

We are pleased to announce that the 5th Conference of the International Society for Integrated Disaster Risk Management (IDRiM 2014) will be hosted by Western University, in London, Ontario, Canada from 30 October to 1 November 2014.

Website: <http://www.has.uwo.ca/cs/idrim/>

Conference Overview

The focus of the conference builds on opportunities through science and technology, political will and behaviour change to reduce the risk of disasters for future generations. Knowledge about the nature and context of natural hazards has proliferated, yet the loss of life and property damage due to disasters remains unacceptably high. The disjuncture between existing opportunities and disaster risk management actions is a complex problem. Driven by common objectives, there is a need to bridge gaps and promote integrated, science-based solutions to empower local communities to advance disaster reduction, adapt to climate change and promote sustainable development. The conference aims to address opportunities for action through varied state of the art contributions from the worlds of disaster science, technology, policy and practice. It is also open to expertise less conventionally recognised within this field. It intends to stimulate a next generation of ideas and actions for disaster reduction.



Cross-cutting Themes

The conference focus solicits papers and sessions informed by cross-cutting themes of disaster risk management, sustainable development, resilience building, vulnerability reduction, risk assessment and governance, risk financing, living with uncertainty, transformative processes, cultural recognition and change, poverty reduction, wellbeing, climate change adaptation, integration science, crisis communication, innovation, communities of practice, and policy including dialogue from different disciplines related to risk management. These cross-cutting themes from academic, policy and practice dialogues will for the purpose of this conference be considered interrelated, mutually informative and key to moving from opportunity to action. The conference focus will be maintained by reflecting on how theory, method and implementation presented by these processes can make a difference to build disaster resilient communities.

Conference topics particularly encouraged

We are keen to receive proposals for papers or sessions relating to the following, though other contributions associated with the conference theme absent from this list will also be considered:

- 1 Building disaster resilient societies
- 2 Integrating with climate change and development goals
- 3 Making cities resilient – case studies and best practices
- 4 Creating an enabling environment to achieve resilience
- 5 Emerging tools for integrated disaster management\
- 6 Risk governance frameworks for resilient communities
- 7 Strategies for (long term) post disaster mitigation measures

Conference Features

The conference will include plenary, parallel, poster, panel, 'young scientists' and doctoral sessions. Peer reviewed proceedings will be produced with special editions of journals/book. Several publishers are interested in providing outlets for this event. Further partnerships and sponsorships in progress.



Dates

March 15, 2014 Call for papers and session proposals. Send to twaddington@iclr.org

March 30, 2014 Opening of registrations

May 15, 2014 Abstract and session proposals closing;

August 15, 2014 Notification of session and abstract acceptance;

August 31, 2014 Announcement of conference programme;

August 31, 2014 Full paper submission and early registration close.

Website:

<http://www.has.uwo.ca/cs/idrim/>

Contacts:

twaddington@iclr.org

IDRiM website: <http://idrim.org> Email: society@idrim.org

IDRiM 2013 Conference Summary

From Opportunity to Action

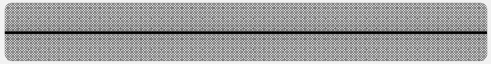
Bridging the Gap between Disaster Reduction and Development through Science(s), Technology and People Centred Actions

The 4th Conference of the International Society for Integrated Disaster Risk Management (IDRiM 2013) together with the Dealing with Disasters International Conference (DwD 2013) was hosted by Northumbria University in Newcastle upon Tyne, UK, from 4th – 6th September 2013. The theme of the conference was “From Opportunity to Action: Bridging the Gap between Disaster Reduction and Development through Science(s), Technology and People Centred Actions.”

DwD / IDRiM 2013 Overview

The focus of the conference centred on opportunities through science and technology, political will and behaviour change to address current crises and reduce risks for 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 aimed to address opportunities for action through varied state of the art contributions from the worlds of disaster science, technology, policy and practice. The conference stimulated a next generation of ideas and actions for disaster reduction.

The conference combined two well-known conference series into one uniquely integrated collaborative event. Building on collaboration between the Disaster and Development Network (DDN) based at Northumbria University and the International Society for Integrated Disaster Risk Management (IDRiM) the conference hosted over



190 participants from 30 countries and counted on the support from multiple institutions around the world. Based on globally shared issues of the need for a means to action, the event stimulated 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 also stimulated 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.

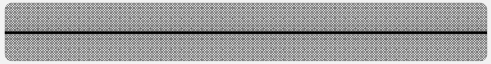
These cross-cutting themes from academic, policy and practice initiatives were for the purpose of the conference considered interrelated, mutually informative, and presenting many challenging questions key to moving from opportunity to action. The conference focus was maintained by reflecting on how theory, method and implementation could make a difference to the future of dealing with disasters.

Structure of the event

The conference hosted six plenary sessions and 27 parallel sessions including five special postgraduate (Young Scientists Sessions – YSS) oral sessions. In total the event comprised over 160 presentations with inputs from over 30 countries. Posters were displayed throughout the event and were 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 are listed below:

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- '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
 - 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



Best Young Scientists Paper Awarded during IDRiM 2013

During the IDRiM 2013 Conference the top 10 papers submitted to the YSS received recognition. The first Prize went to Xiaoning Wu, from Beijing Normal University, China, for the paper entitled: “How Many Storms? Estimation of Historical Tropical Cyclone Rate for Coastal China”. The second prize was awarded to Shiyu Zhang, DPRI, Kyoto University, Japan, for the work entitled: “Disaster Risk and Effect of Informal Insurance on Human Capital Formation in Rural Areas of Developing Countries”, and the third place was awarded to Joel C. Gill, Kings College London, UK, for the paper entitled: “Reviewing and Visualizing Natural Hazard Interactions within a Multi-hazard Framework”.

Website:

http://www.northumbria.ac.uk/sd/academic/ee/work/research/geography/ddn/dwd_2013/

2. Other NEWS

World Economic Forum Published Global Risk Report 2014

From the Executive Summary: The *Global Risks 2014* report highlights how global risks are not only interconnected but also have systemic impacts. To manage global risks effectively and build resilience to their impacts, better efforts are needed to understand, measure and foresee the evolution of interdependencies between risks, supplementing traditional risk-management tools with new concepts designed for uncertain environments. If global risks are not effectively addressed, their social, economic and political fallouts could be far-reaching, as exemplified by the continuing impacts of the financial crisis of 2007-2008.

The systemic nature of our most significant risks calls for procedures and institutions that are globally coordinated yet locally flexible. As international systems of finance, supply chains, health, energy, the Internet and the environment become more complex and interdependent, their level of resilience determines whether they become bulwarks of global stability or amplifiers of cascading shocks. Strengthening resilience requires overcoming collective action challenges through international cooperation among business, government and civil society.

Objectives of the Global Risks 2014 Report: The world faces risks that can be addressed only by long-term thinking and collaboration among business, governments and civil society. The Global Risks 2014 report aims to support this process by:

- exploring the nature of systemic risks
- mapping 31 global risks according to the level of concern they arouse, their likelihood and potential impact, as well as the strength of the interconnections between them
- looking in-depth at the ways in which three constellations of global risk – centred on youth, cyberspace and geopolitics – could interplay and have systemic impact

Based on a survey of the World Economic Forum's multi-stakeholder communities, the report maps 31 global risks according to level of concern, likelihood and impact and interconnections among them. The risks of **highest concern** to respondents are fiscal crises in key economies, structurally high unemployment and underemployment, and water crises (Table 1).

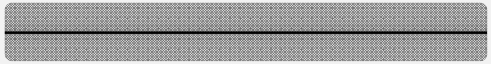
Table 1: Ten Global Risks of Highest Concern in 2014

No.	Global Risk
1	Fiscal crises in key economies
2	Structurally high unemployment/underemployment
3	Water crises
4	Severe income disparity
5	Failure of climate change mitigation and adaptation
6	Greater incidence of extreme weather events (e.g. floods, storms, fires)
7	Global governance failure
8	Food crises
9	Failure of a major financial mechanism/institution
10	Profound political and social instability

Source: Global Risks Perception Survey 2013-2014. Note: From a list of 31 risks, survey respondents were asked to identify the five they are most concerned about.

- The risks considered **high impact and high likelihood** are mostly environmental and economic in nature: greater incidence of extreme weather events, failure of climate change mitigation and adaptation, water crises, severe income disparity, structurally high unemployment and underemployment and fiscal crises in key economies. Female respondents perceived almost all global risks as both more likely and more impactful than did males, especially in the environmental category. Younger individuals gave higher scores for the impact of almost all of the risks, particularly environmental risks, such as water crises, greater incidence of natural catastrophes, loss of biodiversity and greater incidence of extreme weather events.
- The risks perceived to be **most interconnected with other risks** are macroeconomic – fiscal crises, and structural unemployment and underemployment – with strong links between this macroeconomic risk nexus and social issues, such as rising income inequality and political and social instability. The failure of global governance emerges as a central risk that is connected to many different issues. Mapping perceived interconnections between risks helps to understand the potential transmission channels between them.
- The decline of trust in institutions, lack of leadership, persisting gender inequalities and data mismanagement were among **trends to watch**, according to survey respondents. Experts added further concerns including various forms of pollution, and accidents or abuse involving new technologies, such as synthetic biology, automated vehicles and 3-D printing.

Of the many conceivable ways in which possible interconnections and interdependencies between global risks could play out systemically over the 10-year horizon considered by this report, three are explored in depth:

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- **Instabilities in an increasingly multipolar world:** Changing demographics, growing middle classes and fiscal constraints will place increasing domestic demands on governments, deepening requirements for internal reform and shaping international relations. Set against the rise of regional powers, an era of greater economic pragmatism and national self-protection might increase interstate friction and aggravate a global governance vacuum. This may hinder progress on cross-cutting, long-term challenges, and lead to increased inefficiencies and friction costs in strategically important sectors, such as healthcare, financial services and energy. Managing this risk will require flexibility, fresh thinking and multi-stakeholder communication.
 - **Generation lost?** The generation coming of age in the 2010s faces high unemployment and precarious job situations, hampering their efforts to build a future and raising the risk of social unrest. In advanced economies, the large number of graduates from expensive and outmoded educational systems – graduating with high debts and mismatched skills – points to a need to adapt and integrate professional and academic education. In developing countries, an estimated two-thirds of the youth are not fulfilling their economic potential. The generation of digital natives is full of ambition to improve the world but feels disconnected from traditional politics; their ambition needs to be harnessed if systemic risks are to be addressed.
 - **Digital disintegration:** So far, cyberspace has proved resilient to attacks, but the underlying dynamic of the online world has always been that it is easier to attack than defend. The world may be only one disruptive technology away from attackers gaining a runaway advantage, meaning the Internet would cease to be a trusted medium for communication or commerce. Fresh thinking at all levels on how to preserve, protect and govern the common good of a trusted cyberspace must be developed.

Collaborative multi-stakeholder action is needed. Wide variance in how risks are identified and managed still exists. Businesses, governments and civil society alike can improve how they approach risk by taking steps such as opening lines of communication with each other to build trust, systematically learning from others' experiences, and finding ways to incentivize long-term thinking. By offering a framework for decision-makers to look at risks in a holistic manner, the *Global Risks 2014* report aims to provide a platform for dialogue and to stimulate action (Source: Executive Summary, see <http://reports.weforum.org/global-risks-2014/executive-summary/>)

Website: <http://reports.weforum.org/global-risks-2014/>



IPCC publishes full report

Climate Change 2013: The Physical Science Basis

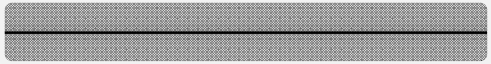
From the Press Release: GENEVA, 30 January - Warming of the climate system is unequivocal, human influence on the climate system is clear, and limiting climate change will require substantial and sustained reductions of greenhouse gas emissions. These are the key conclusions from an assessment by the Intergovernmental Panel on Climate Change (IPCC) that is released today (30 January 2014) in its full and finalized form.

The Summary for Policymakers of the IPCC Working Group I assessment report, *Climate Change 2013: the Physical Science Basis*, was approved in September 2013 by the member governments of the IPCC meeting in Stockholm, Sweden, who also accepted the underlying report, after which the Summary for Policymakers was immediately made public.

The full report released today (30 January 2014) is the basis for the key conclusions presented in the Summary for Policymakers. This Working Group I contribution to the IPCC's Fifth Assessment Report offers a comprehensive understanding of the physical science basis of climate change. Policymakers, stakeholders and the scientific community are now able to use and apply the detailed information on which IPCC Working Group I bases its assessment. Additional material documents the IPCC assessment process with its multiple rounds of drafting and review.

"The Working Group I Fifth Assessment Report, which has over 1500 printed pages of text and includes more than 600 printed diagrams, provides a comprehensive assessment of the physical science basis of climate change, citing more than 9000 scientific publications. The report provides information about what has changed in the climate system, why it has changed, and how it will change in the future," said Thomas Stocker, Co-Chair of IPCC Working Group I.

The full report consists of the Summary for Policymakers, a longer Technical Summary, 14 chapters and six annexes including an Atlas of Global and Regional Climate Projections. The Atlas is an innovation in this Working Group I assessment, containing time series and maps of temperature and precipitation projections for 35 regions of the world, which enhance accessibility for stakeholders and users. As well as the printed Atlas, there are four sets of Atlas Supplementary Material with 155 figures each, and the data underlying the Atlas figures will also be made available as part of the launch.



Another innovative feature of this report is the presentation of Thematic Focus Elements in the Technical Summary that provide end-to-end assessments of important cross-cutting issues for understanding the physical science basis of climate change, such as water cycle change, irreversibility and abrupt change, climate sensitivity and feedbacks, climate targets and stabilization. All chapters contain Frequently Asked Questions in which the authors provide scientific answers to a range of general questions in an accessible form. In order to document the drafting and review process, the IPCC is making public the earlier drafts of the report that were subject to formal review, all 54,677 written review comments by expert and government reviewers on those drafts and the responses by the authors to the comments. All figures from the Summary for Policymakers, the Technical Summary, and from the 14 Chapters of the report are also being made available electronically in order to facilitate outreach and communications activities that wish to highlight IPCC findings. Extensive Supplementary Material can be accessed online and includes description of datasets, models, or methodologies used in some chapters of the assessment. Background information on all the figures in the Summary for Policymakers is provided in the Supplementary Material to the Technical Summary (Source: http://www.ipcc.ch/pdf/press/press_release_wg1_full_report.pdf.)

Website: <https://www.ipcc.ch/report/ar5/wg>



World Bank publishes *World Development Report 2014*

From the Press Release: In the face of social unrest, economic crises, and more frequent natural disasters, preparation and recovery efforts by governments, communities, and individuals have become increasingly essential. Effective risk management can provide both resilience to withstand adverse events and the ability to take advantage of development opportunities. It is, therefore, a critical ingredient in the fight to end poverty, says a new report from the World Bank Group.


According to the **World Development Report 2014**, titled '**Risk and Opportunity: Managing Risk for Development**', adverse shocks – above all health, weather shocks, and economic crises – play a major role in pushing households below the poverty line and keeping them there. The report concludes that managing risks responsibly and effectively can save lives, avert economic damages, prevent development setbacks, and unleash opportunities. Risk management can be a powerful instrument for development, bringing security and the means of progress to people in developing countries and beyond.

Over the past 25 years, the world has experienced rapid integration, economic reform, technological modernization, and increased democratic participation, but has also endured financial turbulence, job and income loss, and environmental damage. The WDR contends that, rather than rejecting change in order to avoid risk, people and institutions need to prepare for the opportunities and risks that accompany change. The report argues that proactive, systematic, and integrated risk management efforts are needed more than ever.

“We’re advocating a sea change in the way risk is managed,” says **World Bank Group President Jim Yong Kim**. “Our new approach calls for individuals and institutions to shift from being ‘crisis fighters’ to proactive and systematic risk managers. Doing so will help build resilience, protect hard-won development gains, and move us closer to achieving the World Bank Group’s goals of ending extreme poverty and boosting shared prosperity.”

The report finds that the benefits from preparing for risk can significantly outweigh the costs. For example, mineral supplements designed to reduce malnutrition may yield benefits 15 times greater than the costs. The report also finds that preparation induces people to be less risk averse. For instance, having access to rainfall insurance can induce farmers to invest in fertilizer, seeds, and other inputs, instead of simply stashing money in a mattress as a cushion for when the next dry spell comes.

Some risks have fallen dramatically in recent years. Life expectancy, for example, has risen thanks to expanded immunization, better safety nets, and improved forecasting of cyclones, tsunamis, and quakes. Moreover, most developing countries undertook



reforms over the last decade that helped them build greater resilience to swings in global capital flows. This improved resilience helped countries maintain growth and poverty reduction during the recent global financial crisis.

“Risk drives a wedge between outcomes and decisions. If a person puts all her savings on a roulette bet, and wins, the outcome is to be cheered but the decision to place the bet may, nevertheless, be regarded as faulty,” says Kaushik Basu, World Bank Chief Economist and Sr. Vice President. “This World Development Report shows human decision-making falters most where risk is involved – for this reason, risk creates special challenges for development policy. As globalized nations contend with fluctuations between good and bad outcomes, there is at times a propensity to shy away from development and globalization, when in fact doing so is to opt for the bad outcome in perpetuity.”

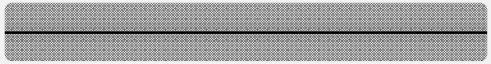
The report finds that, because most individuals remain ill-equipped to confront many shocks, they must depend on shared action and responsibility at different levels of society. Households provide support, pool resources, protect members, and invest in their future. Communities provide informal networks of insurance and pool resources to confront common risks. Enterprises provide employment and income, and foster innovation and productivity. The financial system offers risk management tools such as savings, insurance and credit. The state manages large systemic risks, provides an enabling environment, and supports the vulnerable. And the international community offers expertise, facilitates policy coordination, and pools global resources.

As WDR Director Norman Loayza points out, “Although people’s own efforts, initiative, and responsibility are essential to manage risk, their success –in terms of resilience and prosperity – will be limited without a supportive environment.”

Effective risk management consists of combining the capacity to prepare for risk with the ability to cope afterwards, while pitting the upfront cost of preparation against the probable benefit, according to the report. A strong risk management strategy consists of four components: knowledge, protection, insurance, and coping.

Beyond amassing information, knowledge involves using information to assess exposure to events and possible outcomes, and then deciding how to act. Protection constitutes actions that lower the probability and size of negative outcomes or raise the probability and size of positive outcomes. To the extent that protection cannot entirely eliminate the risk of negative outcomes, insurance, whether formal or informal, helps cushion the blow from adverse shocks. Finally, coping encompasses all actions taken once a risk or opportunity has materialized.

Individuals and societies fail to tackle risk proactively for a variety of reasons, including lack of resources and information, missing markets and public goods, and even social exclusion. The drainage system in the Indian city of Mumbai, for example, heavily clogged by rubbish and over 100 years old, is hardly able to handle the annual monsoon rains. Over the years, multiple proposals to improve the system have been put



forth, but the city has yet to fully adopt most of them, and Mumbai remains vulnerable to flooding. Effective risk management in cases such as this requires identifying and addressing the obstacles that prevent people, communities, and countries from taking necessary actions.

This year's WDR proposes policies for the household, local, national and global levels. But its overarching advice centers on the need to manage risk proactively at every level, and in a way that aligns with and supports broader objectives, such as national development plans, municipal infrastructure investment programs, or even household savings goals. At the country level, the WDR recommends setting up national risk boards, an institutional reform already in place in Singapore and being considered in Morocco, Jamaica, and Rwanda. The World Bank Group stands ready to support risk management reforms in countries across the developing world.

Today, all arms of the World Bank Group – including the International Bank for Reconstruction and Development, International Development Association, International Finance Corporation (IFC), and the Multilateral Investment Guarantee Agency – provide assistance aimed at fostering effective risk management. Assistance comes in the form of policy advice, support for private sector development, plus loans and programs to advance urbanization, infrastructure, and human development, including social protection. The World Bank Group will use the findings of the WDR 2014 to scale up this vital support, so that countries can more effectively manage risk in the future (Source: <http://www.worldbank.org/en/news/press-release/2013/10/06/better-risk-management-unlock-opportunities-prevent-crises-protect-poor-amidst-disasters-shocks>).

Website: <http://hdl.handle.net/10986/16092>

3. Ongoing Field Work

Community Disaster Resilience Building Initiation Pilot:

Bridging research and practice to enable sustainable bottom-up community empowerment

By **Matthias J.M. Dorfstaetter**

Emergency Management Planning, Local Government, AUSTRALIA

Rationale

This Pilot was designed to address the widespread and persistent hesitation to acknowledge and utilise latest emerging disaster resilience research concepts in community settings. Acknowledging the need for community based organisations to kick-start a resilience culture and overcome culturally ingrained barriers, I designed, and continue to facilitate this Pilot, creating a 'Community Disaster Resilience Implementation Process Model, by using the latest research concepts and testing their practicability at ground level.

The main aim of this Pilot is to highlight processes which are imperative when shifting from a 'hazard-orientated' emergency management culture to a 'vulnerability, resilience or needs' based culture and discuss potential barriers to modifying ingrained processes and ways of thinking. The Pilot will demonstrate how community resilience can be set up in a period of six months, to empower stakeholders and community members to accept, own and act according to their underlying risks.

Concept

This Pilot will use a collaborative partnership approach by combining the resources of four universities; emergency response and support agencies; and draw on local, national and federal government support to help create a more disaster resilient community. This Project Partner involvement is the first line of stakeholder engagement, which is argued to be essential in terms of utilising best available resources to initiate a community based disaster resilience culture.

Latest research concepts will analyse community resilience to inform, support and design the overall resilience strategy, which will be tailored to local needs and therefore achieve cost-efficiency in its implementation. The involvement of members of the public, in decisions that affect them, is a core principle in most current concepts which aim for sustainability (Guimaraes, 2001). The Pilot is designed in a bottom-up community empowerment approach and will be oriented on the following ideals, also illustrated in Figure 1:

- (i) Gaining an understanding of community complexity and its needs
- (ii) Engaging and empowering the whole community
- (iii) Strengthening existing and building new networks and relationships

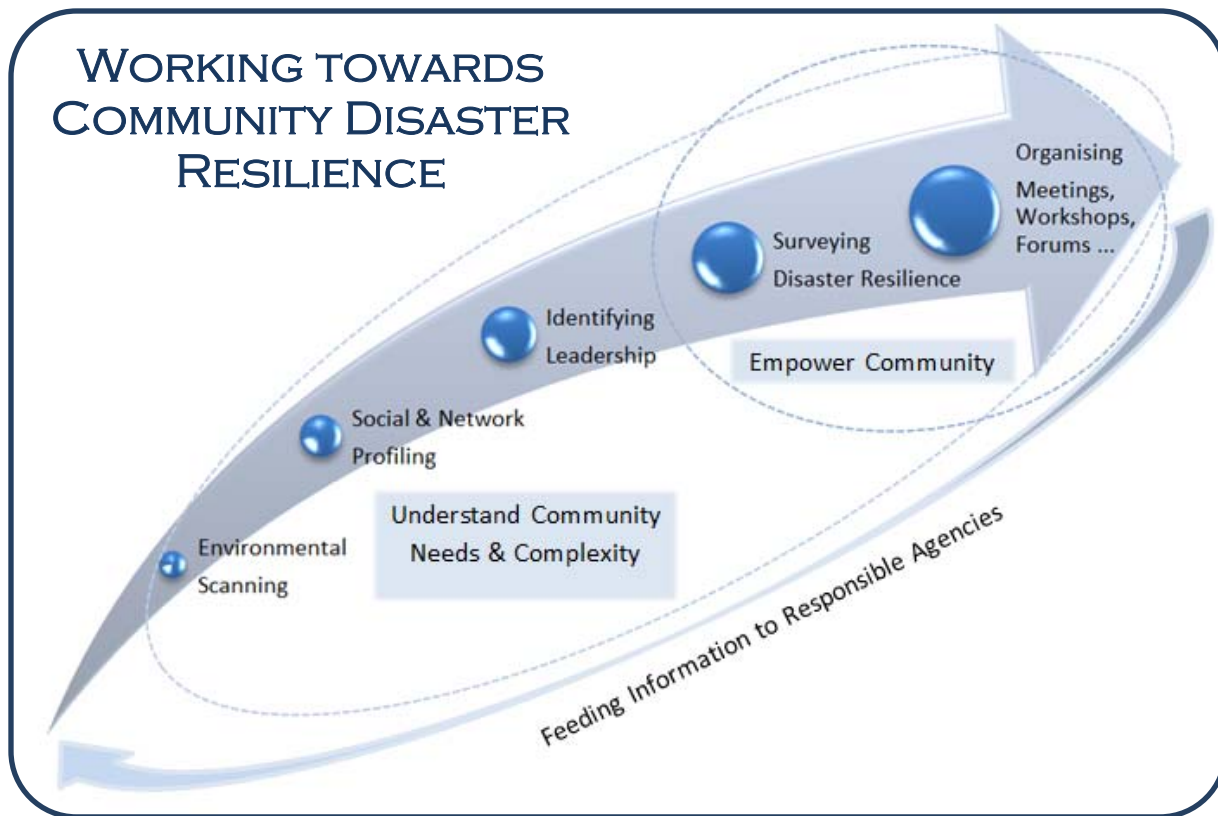


Figure 1: Community Resilience Initiation Process Model

Complexities

When building community resilience at a local level, limited access to resources, limited understanding of integrated risk based planning principles and missing commitment from key stakeholders, are potential barriers resilience practitioners might face. Communities are combinations of non-exclusive groupings, which can be defined by organising cultural beliefs and practices (Gordon, 2004), which makes a community a social setting with underlying complexities. These complexities act as a driving force for the rationale of this Pilot, to support resilience, practitioners with an efficient, 'relatively' easy implementable, resourceful and evidence-based model, which guides and supports the initiation of a community disaster resilience building culture.

Resilience is therefore defined as 'adaptive capacity', hence "*society's capability to draw upon its individual, collective and institutional resources and competencies to cope with, adapt to, and develop from the demands, challenges and changes accounted before, during and after a disaster*" (p.1; Becker et al., 2011). The community disaster resilience strategy building concept is orientated on the evidence based adaptive capacity model, illustrated in Figure 2, which has previously been tested using different hazards in different communities and is thus deemed a reliable predictor of resilience (Paton & Johnston, 2006). Various model factors and indicators will be tested on site using a combination of research methods, drawing on support from researchers based the four partner universities.



Figure 2: Adaptive capacity: Community & Societal Interdependence
 Source: Paton & Johnston, 2006

Pilot Implementation

The Pilot takes place in an Australian community in need of improving disaster resilience, as disasters are a common feature of Australian climate and landscape (National Strategy for Disaster Resilience, 2011). The conceptual bottom-up approach, to create ‘adaptive capacity’ is based on a whole community principle, by which residents, emergency management practitioners, organisational and community leaders, and government officials will be enabled to collectively understand and assess the needs of their respective communities and determine the best way to organise and strengthen their assets, capacities, and interests (FEMA, 2011). To categorise and ensure the inclusion of the whole community in the resilience building approach, the Pilot is orientated on the four elemental community environments (illustrated in Figure 3), not only to make the concept more comprehensible for involved stakeholders.

Various differences embedded in the community may lead to differences in resilience levels to a disaster (Maguire & Hagan, 2006) and from a community development perspective it is important to identify positions, organisations, and individuals of power, as all types of power can serve as a resource for local or collective action (Wilkinson, 1991). The identification process of these local power structures provides a basis for involving community members and main strategy stakeholders. Figure 4 illustrates the community engagement model for emergency management, which outlines potential stages for community involvement in disaster resilience building activities and specifies the level of process ownership individuals need to obtain in order to become empowered. This process will be operationalized using a community engagement theory that depicts trust as a process, influenced by dispositional, situational and structural factors (Paton, 2008).

It is anticipated that the findings of this Pilot will highlight significant conceptual community resilience initiation stages, support future implementation processes and shine light on cultural barriers, imperative to overcome.



Figure 3 (left): Community Engagement Model for Emergency Management

Source: AEMI, 2013

Figure 4 (above): The four environments – integral aspects of community recovery

Source: AEMI, 2011

References

- AEMI (2011) Community Recovery, Handbook 2. Australian Emergency Management Institute, Commonwealth Attorney-General's Department.
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4. Conference Announcements

- **30 October – 1 November 2014**
IDRiM 2014

The 5th Conference of the International Society for Integrated Disaster Risk Management (IDRiM 2014), entitled “Building Disaster Resilient Communities” will be held at Western University, London, Ontario, Canada from 30 October to 1 November 2014. For more information, see page 4 of this Newsletter.

Website: <http://www.has.uwo.ca/cs/idrim/>

- **4-6 June, 2014**
9th International Conference on Risk Analysis and Hazard Mitigation

The analysis and management of risk and the mitigation of hazards is of fundamental importance to planners and researchers around the world. We live in an increasingly complex society with the potential for disasters on a worldwide scale. Natural hazards such as floods, earthquakes, landslides, fires and others have always affected human societies. Man-made hazards, however, played a comparatively small role a few centuries ago until the risk of catastrophic events started to increase due to the rapid growth of new technologies. The interaction of natural and anthropogenic risks adds to the complexity of the problem. Risk Analysis 2014 is the ninth international conference on computer simulation in risk analysis and hazard mitigation. Risk Analysis 2014 follows on from the other successful meetings in this series, which first started in Valencia, Spain (1998) and continued in Bologna, Italy (2000); Sintra, Portugal (2002); Rhodes, Greece (2004); Malta (2006); Cephalonia, Greece (2008); Algarve, Portugal (2010) and more recently on the island of Brac in Croatia (2012). The conference covers a series of important topics of current research interests and many practical applications. It is concerned with all aspects of risk management and hazard mitigation, associated with both natural and anthropogenic hazards

Website:

http://www.wessex.ac.uk/images/stories/pdf_cfps/2014/riskanalysis2014cfp.pdf

- **7-9 June, 2014**
2nd Integrated Research on Disaster Risk Conference

The 2nd IRDR conference on the theme "Integrated Disaster Risk Science: A tool for sustainability" will take place from June 7-9 2014 at the China National Convention Center in Beijing, China. The format of the conference will be a series of plenary sessions dealing with the challenges of implementing integrated research, inter-organizational collaboration, and policy, as well as the interaction

with sustainable development activities. The sessions will address the range of environmental hazards, vulnerability, and sustainability in both global and local contexts.

Website: <http://www.icsu.org/events/interdisciplinary-body-events/2nd-integrated-research-on-disaster-risk-conference>

- **18-20 June, 2014**
4th International Conference on Flood Recovery, Innovation and Response

FRIAR 2014 is the fourth Conference of this successful series. The conference started at the Institute of Civil Engineers in London 2008 and was reconvened at the Lombardy Region in Milano in 2010 and in Dubrovnik in 2012. Flooding is a global phenomenon that claims numerous lives worldwide each year. When flooding occurs in populated areas, it can cause substantial damage to property as well as threatening human life. In addition, many more people must endure the homelessness, upset and disruption that are left in the wake of floods. The increased frequency of flooding in the last few years, coupled with climate change predictions and urban development, suggest that these statistics are set to worsen in the future. How we respond and adapt to these challenges is key to developing our long term resilience at the property, community and city scale. Apart from the physical damage to buildings, contents and loss of life, which are the most obvious impacts of floods upon households, other more indirect losses are often overlooked. These indirect and intangible impacts are generally associated with disruption to normal life as well as longer term health issues including stress related illness. Flooding represents a major barrier to the alleviation of poverty in many parts of the developing world, where vulnerable communities are often exposed to sudden and life threatening events.

Website: <http://www.wessex.ac.uk/14-conferences/friar-2014.html>

- **24–28 August, 2014**
IDRC Davos 2014

The IDRC Davos 2014 will address the numerous interconnected, complex and emerging risks today's societies are faced with. Environmental, technical, social and economic risks are often closely linked and can result in successive impact. Risks and disasters explored at the IDRC Davos 2014 include, amongst others, natural hazards, failures of critical infrastructure and services, pandemics, acts of terrorism and financial crises. All can severely impact and influence human beings and collective societies. IDRC Davos 2014 will address the Integrative Risk Management Approach within the following context: - Disaster prevention, preparedness, emergency response, vulnerability and resilience - Extreme events, climate change adaptation, migration - Critical infrastructures and Services - Na-tech hazards, cascading risks, technological risks - Health impacts, medical response, One Health - Capacity building, education, communication

and training - Economics of disaster, financial tools for risk management
- Risk and society, risk governance, risk culture

Website: http://idrc.info/pages_new.php/5th-IDRC-Davos-2014/1121/1/

- **2-5 September, 2014**

After disaster strikes: Learning from adversity

The Australasian Fire Authority Council (AFAC) will host the conference in Wellington, New Zealand. This four day conference will aim to bring together emergency management sector to share experience, research and analysis from across the sector. An exchange of knowledge and understanding will be explored to better prepare and secure the region's future and prosperity.

Website: <http://knowledgeweb.afac.com.au/events/conference>

- **12-14 September 2014**

DPM: Disaster Prevention and Mitigation 2014

2014 Conference on Disaster Prevention and Mitigation (DPM 2014) will be held from September 12-14, 2014 in Wuhan, China. This Conference will cover issues on Disaster Prevention and Mitigation. It dedicates to creating a stage for exchanging the latest research results and sharing the advanced research methods. Wuhan, known as the 'Thoroughfare to Nine Provinces', is an important central city in China and the political, economic, scientific & technological, cultural and financial center in inland China. The third longest river of the world, the Yangtze River, and its longest branch, the Han River, cross here and divide the city into three parts, Hankou, Hanyang and Wuchang. We look forward to seeing you in Wuhan! Topics: Buildings and constructions, Urban/rural environments and settlements, Infrastructures, Disaster Prevention and Disaster Recovery, Policies and management, Social aspects and education.

Website:

http://www.engii.org/workshop/DPM2014September/Home.aspx?utm_campaign=dpm&utm_source=e_cp&utm_medium=e_cp_conf_workshop_dpm2_20140311

- **24–26 September**

Deltas in Times of Climate Change II

Floods in Bangkok and the Thames delta, salt intrusion in Egypt and Bangladesh: these are just some examples of rising risks to deltas and delta cities driven by climate change. Action is required now. Exchanging scientific

knowledge, lessons learned and best practices is vital. This conference will make that happen. The three main goals of the conference are: _Exchanging of up-to-date top science on climate change and delta planning. Exploring and intensifying the links between science, policy and practice, Strengthening of international cooperation between deltas and delta cities. You can enjoy three plenary sessions with interesting top level speakers and choose between many sessions: Deltas in Practice: sessions to showcase and discuss experiences with adaptation, best practices, case studies, tools and methods Deltas in Depth: sessions with presentations and discussions of scientific findings of Delta research and its relevance for practical applications Delta Sessions: presentations and discussions about challenges of specific deltas and solutions they opt for Round Tables: round table discussions for government officials, the business community, policy makers and NGOs: Mayors Table, financing adaptation and community based adaptation

Website: <http://www.climatedeltaconference2014.org/programme>

- **19–21 November**

The 5th International Conference on Sustainable Future for Human Security.

The past four conferences have attracted more than 500 participants from Europe, Africa and Asia, with highly-qualified papers and posters. This time we are expecting more than two hundred participants for oral and poster presentations. The SUSTAIN conference originated from the need to provide an inter-disciplinary forum where the most serious problems affecting a sustainable future for human security can be discussed, in recognition of the fact that many future problems cannot be solved by a “siloed” approach. The conference will address problems of primary importance for human security, discussing and proposing a more constructive and progressive approach to ensure future societal sustainability. The meeting will provide a common forum for a wide range of researchers and practitioners specialising in a range of subjects related to the conference themes.

Website: <http://www.sustain-conference.com/>

5. Internet Resource List

- Tangible Earth, including ipad android version.
<http://www.tangible-earth.com/en/>
- Disaster Resilient Australia – Knowledge Hub
<http://www.emknowledge.gov.au/>
- Global Disaster Watch
<http://globaldisasterwatch.blogspot.co.at/>
- RSOE EDIS - Emergency and Disaster Information Service
<http://hisz.rsoe.hu/alertmap/index2.php>
- GDACS - Global Disaster Alert and Coordination System
<http://www.gdacs.org/>
- Pacific Disaster Center
<http://www.pdc.org/>
- Global Assessment Report on Disaster Risk Reduction 2013:
<http://www.preventionweb.net/english/hyogo/gar/2013/en/home/index.html>
- United Nations Office for Disaster Risk Reduction. Global Assessment Report (GAR): <http://www.unisdr.org/we/inform/gar>
- PreventionWeb: Serving the information needs of the disaster reduction community: <http://www.preventionweb.net/english/>.
- Disaster Reduction Hyper base: Web based facility to compile appropriate disaster reduction technologies and knowledge.
Website:
<http://drh.edm.bosai.go.jp/>
- MCEER: Collection of disaster management resources, including international, federal, state, local and non-profit organizations:
Website:
http://mceer.buffalo.edu/infoservice/reference_services/disasterManagementResources.asp

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- Staffordshire Raynet: Disaster and Emergency Management on the Internet. Long list of websites for various disasters and databases.
Website:
<http://www.keele.ac.uk/depts/por/disaster.htm>
 - Internet Resources for Disaster Studies: University of Delaware Library
Website:
<http://www2.lib.udel.edu/subj/disasters/internet.htm>
 - FEMA” Federal Emergency Management Agency: Focus is on the US
Website:
<http://www.fema.gov/index.shtm>
 - EDEN - Extension Disaster Education Network: Reducing the Impact of Disasters Through Education
Website:
<http://eden.lsu.edu/EDENCourses/Pages/default.aspx>
 - Disaster Handbook: University of Florida.
Website:
<http://disaster.ifas.ufl.edu/links.htm>
 - Disaster Management: Royal Roads University.
Website:
<http://libguides.royalroads.ca/content.php?pid=64941&sid=480216>
 - Natural Hazards and Disaster Information Resources: University of Colorado at Boulder (including newsletter).
Website:
<http://www.colorado.edu/hazards/resources/>

6. (New) Journals

- **Weather and Climate Extremes**

- **Objective:** Weather and Climate Extremes provides academics, decision makers, international development agencies, nongovernmental organizations and civil society with publications on different aspects of research in weather and climate extremes, monitoring and early warning systems, assessment of vulnerability and impacts, developing and implementing intervention policies, effective risk management and adaptation practices to address local and regional needs and circumstances, engagement of local communities in the adoption of these practices to cope with extremes, and information and communication strategies. The journal encourages the submission of original research papers, comprehensive review articles, and short communications which address the following: Weather and Climate Extremes •Types of extremes •Quality and quantity of data and data analysis •Frequency, intensity, spatial extent, duration, and timing of extreme events •Observed and projected changes in weather and climate extremes Research Approaches •Atmospheric science (processes and modeling) •Short- and medium-range forecasts of weather extremes •Seasonal forecasts of climate extremes •Monitoring and early warning systems •Modelling impacts of weather and climate extremes •Statistical aspects of extremes Vulnerability and Impacts of Weather and Climate Extremes •Natural physical environment •Human systems eg., coastal settlements, mountain settlements, urbanization etc., •Ecosystems •Temporal and spatial dynamics of exposure and vulnerability •Observed and projected impacts in different socio-economic sectors Managing Weather and Climate Extremes •Traditional knowledge •Preparedness planning •Risk Management •Information and communication strategies •Policies and practices for adaptation to weather and climate extremes •Resilience to adverse impacts of extremes •Issues and opportunities at the local, national and international levels •Technological innovations and improved practices •Reducing societal vulnerability to weather and climate extremes •Case Studies

- **Website:**

<http://www.journals.elsevier.com/weather-and-climate-extremes/>

- **Climate Risk Management**

- **Objective:** Welcome to the online submission and editorial system for Climate Risk Management. Climate Risk Management publishes

original scientific contributions, state-of-the-art reviews and reports of practical experience on all aspects of the production and use of climate and climate-related information in decision and policy making from the near- to long-term. Therefore, the scope of the journal covers: Historical, current, and future climate conditions across multiple space and time scales; Risk assessment and risk management approaches for climate-sensitive sectors such as agriculture, forestry and fire management, health, mining, natural resources management, water management, the built environment, and tourism; and Analysis of relevant institutional developments and arrangements. Topics of interest include, but are not limited to: The application of seasonal forecasting and regional climate change projections; Capacity building; Infrastructure design; Management and systematic reduction of climate-induced hazards and disasters; Protection of lives, livelihoods and property; Mitigation of environmental damage; Sustainable resource use and production; Impacts, vulnerability and adaptation at individual, community and institutional levels; Regulatory risks associated with climate change; and Climate-sensitive interactions between economic, environmental and social systems. Research papers should consider the practical application of the thesis advanced through case studies, experiments, or systematic comparisons with existing approaches. Special issues devoted to topics of particular interest will be published on an occasional basis, and proposals for such issues are invited. Submission of multi- and interdisciplinary studies, particularly those involving economics and the social sciences, is encouraged.

- **Website:** <http://ees.elsevier.com/clrm/>

- **Journal of Geography & Natural Disasters**

- **Objective:** Geography is the study of earth and its land and water features, inhabitants and phenomena. Geography has been called "the world discipline". Geography is divided into two main branches-Human geography and Physical geography. A Natural Disaster may be defined as the effect of Natural hazards which leads to human, environmental or financial losses. The journal includes a wide range of fields in its discipline to create a platform for the authors to make their contribution towards the journal and the editorial office promises a peer review process for the submitted manuscripts for the quality of publishing. Journal of Geography and Natural Disasters is an Open Access journal and aims to publish most complete and reliable source of information on the discoveries and current developments in the mode of original articles, review articles, case reports, short communications, etc. in all areas of the field and making them freely available through online without any restrictions or any other subscriptions to researchers

worldwide. The journal is using Editorial Tracking System for quality in review process. Editorial Tracking is an online manuscript submission, review and tracking systems. Review processing is performed by the editorial board members of Journal of Geography and Natural Disasters or outside experts; at least two independent reviewers approval followed by editor approval is required for acceptance of any citable manuscript. Authors may submit manuscripts and track their progress through the system, hopefully to publication. Reviewers can download manuscripts and submit their opinions to the editor. Editors can manage the whole submission/review/revise/publish process.

- **Website:** <http://www.omicsgroup.org/journals/jgndhome.php>

- **Disaster Health**

- **Objective:** Disaster Health focuses on the intersection of disaster mental and behavioral health and disaster public health. As a rapid-publication, peer-reviewed scientific journal, Disaster Health prioritizes the publication of well-designed and well-executed studies, around the globe, across the complete spectrum of natural, human-generated and hybrid disasters as well as humanitarian crises and complex emergencies (including exposure to terrorism and military conflicts). Disaster Health seeks manuscripts that contain strong research designs and demonstrate the effectiveness and efficacy of programs and interventions. Disaster Health examines the linkage between exposure to physical forces of harm in a disaster and the unique "signature" of mental and physical health impact. Disaster Health solicits articles that also focus on disaster responders, including dimensions of personal, team and organizational preparedness and execution of disaster response duties. Regarding individual response to disaster threat and impact, Disaster Health examines the full range of human response from personal mental health, wellness and resilience to psychological distress and psychopathology. At the community level, Disaster Health explores community disaster prevention, risk reduction and resilience. Across all themes, Disaster Health champions the evolution of the scientific evidence base.

- **Website:** <http://www.landesbioscience.com/journals/disasterhealth/>

- **International Journal of Disaster Risk Reduction (IJDRR)**

- **Objective:** The International Journal of Disaster Risk Reduction (IJDRR) is the journal for researchers, policymakers and practitioners across diverse disciplines: Earth Sciences in its entirety; Environmental Sciences; Civil Engineering; Urban Studies; Geography; and Sociology. The International Journal of Disaster Risk Reduction

(IJDRR) publishes fundamental and applied research, critical reviews, policy papers and case studies focusing on multidisciplinary research aiming to reduce the impact of natural and technological disasters. The International Journal of Disaster Risk Reduction (IJDRR) stimulates exchange of ideas and knowledge transfer on disaster research, mitigation and risk reduction at all geographic scales: local, national and international. Key topics: Multifaceted disaster and cascade disasters . The spatial and temporal monitoring, analysis and zoning of regional hazard risk. The development of disaster risk reduction strategies and techniques. Discussion and development of effective warning and educational systems for risk resilience at all levels. Climate Change and its implications in sudden disasters . The journal particularly encourages papers which approach risk from a multidisciplinary perspective.

- **Website:**
http://www.elsevier.com/wps/find/journaldescription.cws_home/727506/description#description

- **Journal of Integrated Disaster Risk Management, IDRIM Journal:**

- **Objective:** The main objective of IDRiM is to provide an integrated and implementable approach to the growing demand for disaster risk reduction and management by offering reliable, affordable and effective solutions for minimizing the loss of life, property damage, and social and economic disruption. IDRiM also explores implementation science for disaster reduction. IDRiM intends to provide a set of solutions for the all types of: environmental and natural hazards (earthquakes, flood, drought, windstorms, landslides, etc.) and man-made hazards. It also includes the development of methods and tools for modeling and assessment of disaster risks, hazard zonation and hazard mapping; geotechnical zonation, vulnerability analysis, strengthening design of structures, disaster risk evaluation and mapping; and various types of risk management methods such as innovative risk transfer, risk reduction policy; socio-economic studies, human and economic loss estimation, practical loss-control measures, catastrophic risk insurance, public awareness, programming; and solutions for risk reduction in buildings, lifelines, infrastructures, industry, oil-chemical facilities, offshore structures and urban system. IDRiM also covers the governance of disaster risks, design of institutional schemes, participatory approach, etc.
- **Website:** <http://idrimjournal.com/index.php/idrim>

Already listed journals in back issues:

- **Journal of Contingencies and Crisis Management**
<http://onlinelibrary.wiley.com/journal/10.1111/%28ISSN%291468-5973>
- Australasian Journal of Disaster and Trauma Studies
<http://www.massey.ac.nz/~trauma/welcome.shtml>
- ***Jàmbá: Journal of Disaster Risk Studies:***
<http://www.jamba.org.za/index.php/jamba/index>
- **Georisk: Assessment and Management of Risk for Engineered Systems and Geohazards:**
<http://www.tandf.co.uk/journals/journal.asp?issn=17499518&linktype=1>
- **Current Opinion in Environmental Sustainability:**
http://www.elsevier.com/wps/find/journaldescription.cws_home/718675/description#description
- **International Journal of Risk Management (IJRM):**
<http://www.serialspublications.com/journals1.asp?jid=583>
- **International Journal of Safety and Security Engineering:**
<http://journals.witpress.com/jsse.asp>
- **Global Environmental Change:**
http://www.elsevier.com/wps/find/journaldescription.cws_home/30425/description#description
- **Journal of Homeland Security and Emergency Management:**
<http://www.bepress.com/jhsem/about.html>
- **Journal of Emergency Management:**
<http://www.pnpco.com/pn06001.html>
- **International Journal of Disaster Resilience in the Built Environment:**
<http://www.emeraldinsight.com/products/journals/journals.htm?id=IJDRBE>
- **Regional Environmental Change:**
<http://www.springer.com/environment/global+change++climate+change/journal/10113>
- **Natural Hazards Review:**
<http://ascelibrary.org/nho/>
- **Journal of Risk Analysis and Crisis Response**

<http://www.atlantis-press.com/publications/jracr/index.html>

- **Environmental Hazards:**
<http://www.earthscan.co.uk/?tabid=37213>
- **International Journal of Climate Change Strategies and Management (IJCCSM):**
www.emeraldinsight.com/products/journals/journals.htm?id=ijccsm
- **Journal of Natural Disaster Science:**
<http://www.soc.nii.ac.jp/jsnds/contents/jnds/about.html>
- **Disasters:**
<http://www.wiley.com/bw/journal.asp?ref=0361-3666&site=1>
- **Environmental Hazards:** <http://www.earthscan.co.uk/?tabid=37213>
- **Natural Hazards:**
www.springer.com/earth+sciences+and+geography/hydrogeology/journal/11069
- **Mitigation and Adaptation Strategies for Global Environmental Change**
<http://www.springer.com/earth+sciences+and+geography/meteorology+%26+climatology/journal/11027>
- **Extremes**
<http://www.springer.com/statistics/journal/10687>
- **International Journal of Disaster Resilience in the Built Environment**
<http://www.disaster-resilience.salford.ac.uk/international-journal-of-disaster-resilience>
- **Journal of Disaster Research**
http://www.fujipress.jp/JDR/JDR_about.html
- **Asian Journal of Environment and Disaster Management (AJEDM)**
<http://rpsonline.com.sg/journals/101-ajedm/ajedm.html>
- **International Journal of Disaster Risk Science**
<http://www.ijdrs.org>
- **Disaster Advances**
<http://www.disasterjournal.net/>
- **International Journal of Mass Emergencies & Disasters**
<http://www.ijmed.org/>
- **International Journal of Disaster Recovery and Business Continuity**

<http://www.sersc.org/journals/IJDRBC/>

- **Disaster Prevention and Management**
<http://www.emeraldinsight.com/products/journals/journals.htm?id=dpm>
- **Risk Analysis**
<http://www.blackwellpublishing.com/journal.asp?ref=0272-4332&site=1>
- **Journal of Risk Research**
<http://www.tandf.co.uk/journals/journal.asp?issn=13669877&linktype=1>
- **International Journal of Risk Assessment and Management (IJRAM)**
<http://www.inderscience.com/browse/index.php?journalID=24>

7. New Books

Risk - A Multidisciplinary Introduction

Authors: Claudia Klüppelberg, Daniel Straub and Isabell M. Welpé

Year: 2014

Publisher: Springer

ASIN: B00IPA444U

Content: This is a unique book addressing the integration of risk methodology from various fields. It will stimulate intellectual debate and communication across disciplines, promote better risk management practices and contribute to the development of risk management methodologies. Individual chapters explain fundamental risk models and measurement, and address risk and security issues from diverse areas such as finance and insurance, the health sciences, life sciences, engineering and information science. Integrated Risk Sciences is an emerging discipline that considers risks in different fields, aiming at a common language, and at sharing and improving methods developed in different fields. Readers should have a Bachelor degree and have taken at least one basic university course in statistics and probability. The main goal of the book is to provide basic knowledge on risk and security in a common language; the authors have taken particular care to ensure that all content can readily be understood by doctoral students and researchers across disciplines. Each chapter provides simple case studies and examples, open research questions and discussion points, and a selected bibliography inviting readers to further study.

An Introduction to Statistical Modeling of Extreme Values

Authors: Stuart Coles

Year: 2014

Publisher: Springer

ISBN: 1849968748

Content: Directly oriented towards real practical application, this book develops both the basic theoretical framework of extreme value models and the statistical inferential techniques for using these models in practice. Intended for statisticians and non-statisticians alike, the theoretical treatment is elementary, with heuristics often replacing detailed mathematical proof. Most aspects of extreme modeling techniques are covered, including historical techniques (still widely used) and contemporary techniques based on point process models. A wide range of worked examples, using genuine datasets, illustrate the various modeling procedures and a concluding chapter provides a brief introduction to a number of more advanced topics, including Bayesian inference and spatial extremes. All the computations are carried out using S-PLUS, and the corresponding datasets and functions are available via the Internet for readers to recreate examples for themselves. An essential reference for students and researchers in statistics and disciplines such as engineering, finance and environmental science, this book will also appeal to practitioners looking for practical help in solving real problems. Stuart Coles is Reader in Statistics at the University of Bristol, UK, having

previously lectured at the universities of Nottingham and Lancaster. In 1992 he was the first recipient of the Royal Statistical Society's research prize. He has published widely in the statistical literature, principally in the area of extreme value modeling.

Extreme Financial Risks and Asset Allocation

Authors: Olivier Le Courtois and Christian Walter

Year: 2014

Publisher: Imperial College Press

ISBN: 1783263083

Content: Each financial crisis calls for - by its novelty and the mechanisms it shares with preceding crises - appropriate means to analyze financial risks. In *Extreme Financial Risks and Asset Allocation*, the authors present in an accessible and timely manner the concepts, methods, and techniques that are essential for an understanding of these risks in an environment where asset prices are subject to sudden, rough, and unpredictable changes. These phenomena, mathematically known as "jumps", play an important role in practice. Their quantitative treatment is generally tricky and is sparsely tackled in similar books. One of the main appeals of this book lies in its approachable and concise presentation of the ad hoc mathematical tools without sacrificing the necessary rigor and precision. This book contains theories and methods which are usually found in highly technical mathematics books or in scattered, often very recent, research articles. It is a remarkable pedagogical work that makes these difficult results accessible to a large readership. Researchers, Masters and PhD students, and financial engineers alike will find this book highly useful.

Climate Change and Flood Risk Management: Adaptation and Extreme Events at the Local Level

Authors: E. Carina H. Keskitalo (eds.)

Year: 2014

Publisher: Edward Elgar Pub

ISBN: 1781006660

Content: *Climate Change and Flood Risk Management* discusses and problematizes the integration of adaptation to climate change in flood risk management. The book explores adaptation to climate change in relation to flood risk events in advanced industrial states. It provides examples of how flood risk management, disaster and emergency management, and adaptation to climate change may intersect in a number of European and Canadian cases. Taken together, the studies show that integration of adaptation in flood risk and emergency management may differ strongly - not only with risk, but with a number of institutional and contextual factors, including capacities and priorities in the specific municipal cases and within a national and wider context. The book will be relevant to researchers involved with adaptation to climate change and those involved with comprehensive planning in relation to it. It will also be of interest to academics within the fields of environmental studies and the environmentally-oriented social sciences. Contributors: J. Åkermark, E.C.H.

Keskitalo, M. Massie, M.G. Reed, P. Scholten, D. Shrubsole, M. Turunen, J. Vola, G. Vulturius, T. Vuojala-Magga

Routledge Handbook of the Economics of Climate Change Adaptation

Authors: Anil Markandya, Ibon Galarraga and Elisa Sainz de Murieta

Year: 2014

Publisher: Routledge

ISBN: 0415633117

Content: Climate change is one of the greatest challenges facing human kind owing to the great uncertainty regarding future impacts, which affect all regions and many ecosystems. Many publications deal with economic issues relating to mitigation policies, but the economics of adaptation to climate change has received comparatively little attention. However, this area is critical and a central pillar of any adaptation strategy or plan and is the economic dimension, which therefore merits the increase in attention it is receiving. This book deals with the difficulties that face the economics of adaptation. Critical issues include: uncertainty; baselines; reversibility, flexibility and adaptive management; distributional impacts; discount rates and time horizons; mixing monetary and non-monetary evaluations and limits to the use of cost-benefit analysis; economy-wide impacts and cross-sectoral linkages. All of these are addressed in the book from the perspective of economics of adaptation. Other dimensions of adaptation are also included, such as the role of low- and middle-income countries, technology and the impacts of extreme events. This timely book will prove essential reading for international researchers and policy makers in the fields of natural resources, environmental economics and climate change.

Long-Term Governance for Social-Ecological Change (Routledge Research in Environmental Politics)

Authors: Bernd Siebenhüner, Marlen Arnold, Klaus Eisenack, Klaus H. Jacob (Editors)

Year: 2013

Publisher: Routledge

ISBN: 0415633524

Content: The book discusses how to tackle long-term social and ecological problems by using different environmental governance approaches to creating sustainable development. It explores opportunities and requirements for the governance of long-term problems, and examines how to achieve a lasting transformation.

When investments are made to mitigate climate change or preserve biodiversity, future generations can reap benefits from the efforts of the present generation. However, long-term social-ecological change towards sustainable development is disrupted by the fact that the costs and benefits of action are seen by different generations. With a global focus that includes case studies from Europe, Asia, Africa, and North America, this book attempts to address the difficulty of developing and implementing effective long-term governance solutions. The

authors examine what distinguishes long-term problems from other policy problems, what governance responses are available and used, and how different governance mechanisms, namely economic incentives, participation, as well as knowledge and learning, help to address them.

Combining the perspectives on the different governance approaches and featuring cases studies on national, regional and global issues, *Long-Term Governance for Social-Ecological Change* will be of interest to policy-makers, students and scholars of global environmental governance, development, sustainability, politics, economics, law and sociology.

Measuring Vulnerability to Natural Hazards: Towards Disaster Resilient Societies (2nd Edition)

Authors: Jörn Birkmann (Editor)

Year: 2013

Publisher: Springer

ISBN: 9280812025

Content: When societies attempt to plan for or rebuild in the aftermath of catastrophic natural disasters, organizers use terms such as "climate change adaptation," "building resilience," and "vulnerability and risk reduction." But what do these terms actually mean in the way of achievable goals? And how can a society accurately evaluate progress toward those goals? *Measuring Vulnerability to Natural Hazards* addresses these questions. The world is still reeling from several disasters of a magnitude rarely seen: the cascading disaster in Japan, the earthquake in Haiti, floods in Pakistan and Australia. These catastrophes underline the fact that many communities and regions are still vulnerable to extreme events and natural hazards. Additionally, creeping climate-related changes such as rising sea levels will seriously affect livelihoods in many areas. It's been estimated that more than 20 percent of the population in developing countries could face the risks of various hazards such as toxic buildups of salt in the soil, flooding, and coastal storm surges. The dynamic and complex interaction between vulnerable communities and natural hazards, climate-related and otherwise, probably increases the risk of crises and disasters in the future. *Measuring Vulnerability to Natural Hazards* combines practical examples from Africa, Asia, the Americas, and Europe with theoretical and conceptual frameworks for anticipating, preparing for, and responding to disasters. It is essential for all those interested in improving risk reduction and adaptation strategies to extreme events as well as gradual changes related to climate change and natural hazards.

Managing Adaptation to Climate Risk: Beyond Fragmented Responses

Authors: Phil O'Keefe, Geoff O'Brien (Authors)

Year: 2013

Publisher: Routledge

ISBN: 0415600944

Content: Climate change is the single largest threat to the attainment of the Millennium Development Goals (MDGs) and sustainable development. Addressing climate risk is a challenge for all. This book calls for greater collaboration between climate communities and disaster development communities. In discussing this, the book will evaluate the approaches used by each community to reduce the adverse effects of climate change. One area that offers some promise for bringing together these communities is through the concept of resilience. This term is increasingly used in each community to describe a process that embeds capacity to respond to and cope with disruptive events. This emphasizes an approach that is more focused on pre-event planning and using strategies to build resilience to hazards in an adaptation framework. The book will conclude by evaluating the scope for a holistic approach where these communities can effectively contribute to building communities that are resilient to climate driven risks.

Managing Extreme Climate Change Risks through Insurance

Authors: W. J. Wouter Botzen (Author)

Year: 2013

Publisher: Cambridge University Press

ISBN: 1107033276

Content: In recent years, the damage caused by natural disasters has increased worldwide; this trend will only continue with the impact of climate change. Despite this, the role for the most common mechanism for managing risk - insurance - has received little attention. This book considers the contribution that insurance arrangements can make to society's management of the risks of natural hazards in a changing climate. It also looks at the potential impacts of climate change on the insurance sector, and insurers' responses to climate change. The author combines theory with evidence from the rich experiences of the Netherlands together with examples from around the world. He recognises the role of the individual in preparing for disasters, as well as the difficulties individuals have in understanding and dealing with infrequent risks. Written in plain language, this book will appeal to researchers and policy-makers alike.

Extreme Events and Natural Hazards: The Complexity Perspective (Geophysical Monograph Series)

Authors: A. Surjalal Sharma, Armin Bunde, Vijay P. Dimri, Daniel N. Baker (Editors)

Year: 2013

Publisher: American Geophysical Union

ASIN: B00CV3VBIE

Content: *Extreme Events and Natural Hazards: The Complexity Perspective* examines recent developments in complexity science that provide a new approach to understanding extreme events. This understanding is critical to the development of strategies for the prediction of natural hazards and mitigation of their adverse consequences. The volume is a comprehensive collection of

current developments in the understanding of extreme events. The following critical areas are highlighted: understanding extreme events, natural hazard prediction and development of mitigation strategies, recent developments in complexity science, global change and how it relates to extreme events, and policy sciences and perspective. With its overarching theme, Extreme Events and Natural Hazards will be of interest and relevance to scientists interested in nonlinear geophysics, natural hazards, atmospheric science, hydrology, oceanography, tectonics, and space weather.

Disaster Resiliency: Interdisciplinary Perspectives (Routledge Research in Public Administration and Public Policy)

Authors: Naim Kapucu, Christopher V. Hawkins, Fernando I. Rivera

Year: 2013

Publisher: Springer

ASIN: B00AYIK95E

Content: Natural disasters in recent years have brought the study of disaster resiliency to the forefront. The importance of community preparedness and sustainability has been underscored by such calamities as Hurricane Katrina in 2005 and the Japanese tsunami in 2011. Natural disasters will inevitably continue to occur, but by understanding the concept of resiliency as well as the factors that lead to it, communities can minimize their vulnerabilities and increase their resilience? In this volume, editors Naim Kapucu, Christopher V. Hawkins, and Fernando I. Rivera gather an impressive array of scholars to provide a much needed re-think to the topic disaster resiliency. Previous research on the subject has mainly focused on case studies, but this book offers a more systematic and empirical assessment of resiliency, while at the same time delving into new areas of exploration, including vulnerabilities of mobile home parks, the importance of asset mapping, and the differences between rural and urban locations. Employing a variety of statistical techniques and applying these to disasters in the United States and worldwide, this book examines resiliency through comparative methods which examine public management and policy, community planning and development, and, on the individual level, the ways in which culture, socio-economic status, and social networks contribute to resiliency. The analyses drawn will lead to the development of strategies for community preparation, response, and recovery to natural disasters. Combining the concept of resiliency, the factors that most account for the resiliency of communities, and the various policies and government operations that can be developed to increase the sustainability of communities in face of disasters, the editors and contributors have assembled an essential resource to scholars in emergency planning, management, and policy, as well as upper-level students studying disaster management and policy.

The Economic Impacts of Natural Disasters [Hardcover]

Authors: Debarati Guha-Sapir, Indhira Santos, Alexandre Borde (Editors)

Year: 2013

Publisher: Oxford University Press

ISBN: 0199841934

Content: Since the turn of the millennium, more than one million people have been killed and 2.3 billion others have been directly affected by natural disasters around the world. In cases like the 2010 Haiti earthquake or the 2004 Indian Ocean tsunami, these disasters have time and time again wrecked large populations and national infrastructures. While recognizing that improved rescue, evacuation, and disease control are crucial to reducing the effects of natural disasters, in the final analysis, poverty remains the main risk factor determining the long-term impact of natural hazards. Furthermore, natural disasters have themselves a tremendous impact on the poorest of the poor, who are often ill-prepared to deal with natural hazards and for whom a hurricane, an earthquake, or a drought can mean a permanent submersion in poverty. *The Economic Impacts of Natural Disasters* focuses on these concerns for poverty and vulnerability. Written by a collection of esteemed scholars in disaster management and sustainable development, the report provides an overview of the general trends in natural disasters and their effects by focusing on a critical analysis of different methodologies used to assess the economic impact of natural disasters. *Economic Impacts* presents six national case studies (Bangladesh, Vietnam, India, Nicaragua, Japan and the Netherlands) and shows how household surveys and country-level macroeconomic data can analyze and quantify the economic impact of disasters. The researchers within *Economic Impacts* have created path-breaking work and have opened new avenues for thinking and debate to push forward the frontiers of knowledge on economics of natural disasters.

Encyclopedia of Natural Hazards (Encyclopedia of Earth Sciences Series)

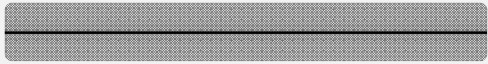
Authors: Pedro Basabe (Adapter), Tom Beer (Adapter), Norm Catto (Adapter), Viacheslav Gusiakov (Adapter), Bill McGuire (Adapter), H. Jay Melosh (Adapter), Farrokh Nadim (Adapter), Philipp Schmidt-Thomé (Adapter), Paul Slovic (Adapter), Peter T. Bobrowsky (Editor)

Year: 2013

Publisher: Springer

ISBN: 9400702639

Content: Few subjects have caught the attention of the entire world as much as those dealing with natural hazards. The first decade of this new millennium provides a litany of tragic examples of various hazards that turned into disasters affecting millions of individuals around the globe. The human losses (some 225,000 people) associated with the 2004 Indian Ocean earthquake and tsunami, the economic costs (approximately 200 billion USD) of the 2011 Tohoku Japan earthquake, tsunami and reactor event, and the collective social impacts of human tragedies experienced during Hurricane Katrina in 2005 all provide repetitive reminders that we humans are temporary guests occupying a very



active and angry planet. Any examples may have been cited here to stress the point that natural events on Earth may, and often do, lead to disasters and catastrophes when humans place themselves into situations of high risk. Few subjects share the true interdisciplinary dependency that characterizes the field of natural hazards. From geology and geophysics to engineering and emergency response to social psychology and economics, the study of natural hazards draws input from an impressive suite of unique and previously independent specializations. Natural hazards provide a common platform to reduce disciplinary boundaries and facilitate a beneficial synergy in the provision of timely and useful information and action on this critical subject matter. As social norms change regarding the concept of acceptable risk and human migration leads to an explosion in the number of megacities, coastal over-crowding and unmanaged habitation in precarious environments such as mountainous slopes, the vulnerability of people and their susceptibility to natural hazards increases dramatically. Coupled with the concerns of changing climates, escalating recovery costs, a growing divergence between more developed and less developed countries, the subject of natural hazards remains on the forefront of issues that affect all people, nations, and environments all the time. This treatise provides a compendium of critical, timely and very detailed information and essential facts regarding the basic attributes of natural hazards and concomitant disasters. The *Encyclopedia of Natural Hazards* effectively captures and integrates contributions from an international portfolio of almost 300 specialists whose range of expertise addresses over 330 topics pertinent to the field of natural hazards. Disciplinary barriers are overcome in this comprehensive treatment of the subject matter. Clear illustrations and numerous color images enhance the primary aim to communicate and educate. The inclusion of a series of unique “classic case study” events interspersed throughout the volume provides tangible examples linking concepts, issues, outcomes and solutions. These case studies illustrate different but notable recent, historic and prehistoric events that have shaped the world as we now know it. They provide excellent focal points linking the remaining terms in the volume to the primary field of study. This *Encyclopedia of Natural Hazards* will remain a standard reference of choice for many years.

Integrated Catastrophe Risk Modelling: Supporting Policy Processes (Advances in Natural and Technological Hazards Research)

Authors: A. Amendola, T. Ermolieva, J. Linnerooth-bayer, R. Mechler (Editors)

Year: 2013

Publisher: Springer

ISBN: 9400722257

Content: Efficient and equitable policies for managing disaster risks and adapting to global environmental change are critically dependent on development of robust options supported by integrated modeling. The book is based on research and state-of-the art models developed at IIASA (International Institute for applied Systems Analysis) and within its cooperation network. It addresses the methodological complexities of assessing disaster risks, which call for

stochastic simulation, optimization methods and economic modeling. Furthermore, it describes policy frameworks for integrated disaster risk management, including stakeholder participation facilitated by user-interactive decision-support tools. Applications and results are presented for a number of case studies at different problem scales and in different socio-economic contexts, and their implications for loss sharing policies and economic development are discussed. Among others, the book presents studies for insurance policies for earthquakes in the Tuscany region in Italy and flood risk in the Tisza river basin in Hungary. Further, it investigates the economic impact of natural disasters on development and possible financial coping strategies; and applications are shown for selected South Asian countries. The book is addressed both to researchers and to organizations involved with catastrophe risk management and risk mitigation policies.

Risk and Uncertainty Assessment for Natural Hazards

Authors: Jonathan Rougier , Steve Sparks, Lisa Hill (Editors)

Year: 2013

Publisher: Cambridge University Press

ISBN: 1107006198

Content: Assessment of risk and uncertainty is crucial for natural hazard risk management, facilitating risk communication and informing strategies to successfully mitigate our society's vulnerability to natural disasters. Written by some of the world's leading experts, this book provides a state-of-the-art overview of risk and uncertainty assessment in natural hazards. It presents the core statistical concepts using clearly defined terminology applicable across all types of natural hazards and addresses the full range of sources of uncertainty, the role of expert judgment and the practice of uncertainty elicitation. The core of the book provides detailed coverage of all the main hazard types and concluding chapters address the wider societal context of risk management. This is an invaluable compendium for academic researchers and professionals working in the fields of natural hazards science, risk assessment and management and environmental science and will be of interest to anyone involved in natural hazards policy.

Floods in a Changing Climate: Risk Management (Advances in Natural and Technological Hazards Research)

Authors: Slobodan P. Simonović

Year: 2013

Publisher: Cambridge University

ISBN: 1107018749

Content: This book presents flood risk management as a framework for identifying and assessing climate-related risks and developing adaptation responses. Ideal for academic researchers and professionals working in hazard mitigation, hydrology, water resources engineering and environmental policy, it is

one of four books on climate-related flood disaster management theory and practice.

Community Disaster Vulnerability: Theory, Research, and Practice

Authors: Michael J. Zakour, David F. Gillespie

Year: 2013

Publisher: Springer

ISBN: 978-1-4614-5736-7

Content: *Community Disaster Vulnerability* offers a deeply nuanced understanding of how disasters affect at-risk populations such as the poor and the elderly, beginning with factors that contribute to disaster risk. Its focus on the complex layers of disruption caused by disasters links research findings across disciplines and levels of intervention. Concepts and models are included that systematically explain the sociopolitical aspects of disasters and identify relevant interventions for bolstering community resilience, providing social support, and distributing post-disaster resources. These practical applications of the theory propose methods of proactive planning for and responses to natural, manmade, or hybrid crises

Education and Natural Disasters

Authors: David Smawfield (Editor)

Year: 2013

Publisher: Continuum

ISBN: 1441199918

Content: What is the relationship between education and natural disasters? Can education play a role in ameliorating and mitigating them, preparing people in how to respond, and even helping to prevent them? If so, how? Drawing on research carried out in a number of different countries, including Australia, China, India, Japan, the UK and the USA, the contributors consider the role of education in relation to natural disasters. The case studies expand conceptual and empirical understandings of the understudied relationship between education and natural disasters, uncover the potential and the limitations of education for mitigating, responding to, and potentially preventing, natural disasters. The contributors also consider the extent to which so-called natural disasters, such as mudslides caused by deforestation and flooding areas built on known flood plains, are linked to human behaviour and how education can impact on these.

Natural Disasters: Prevention, Risk Factors and Management

Authors: Biljana Raskovic, Svetomir Mrdja (Editors)

Year: 2013

Publisher: Nova Science Pub Inc

ISBN: 1622576764

Content: In this book, the authors present current research in the study of the prevention, risk factors and management of natural disasters. Topics discussed

include typhoon and hurricane prediction; point-of-care testing in complex emergency and disaster resilience; management strategies for children during natural disasters; torrential floods prevention; information technology and simulation in disaster management; quantile approach application to seismic risk assessment; the increase of natural disasters as a result of global climate change; coping with disaster trauma; paleo-landslides in central Serbia; how the elderly cope during disasters and crises; and government involvement in Connecticut during Tropical Storm Irene.

Environmental Hazards: Assessing Risk and Reducing Disaster

Authors: Keith Smith (Author)

Year: 2013

Publisher: Routledge (6th Edition)

ISBN: 0415681057

Content: The much expanded sixth edition of *Environmental Hazards* provides a fully up-to-date overview of all the extreme events that threaten people and what they value in the 21st century. It integrates cutting-edge material from the physical and social sciences to illustrate how natural and human systems interact to place communities of all sizes, and at all stages of economic development, at risk. It also explains in detail the various measures available to reduce the ongoing losses to life and property. Part One of this established textbook defines basic concepts of hazard, risk, vulnerability and disaster. Attention is given to the evolution of theory, to the scales and patterns of disaster impact and to the optimum management strategies needed to minimize the future impact of damaging events. Part Two employs a consistent chapter structure to demonstrate how individual hazards, such as earthquakes, severe storms, floods and droughts, plus biophysical and technological processes, create distinctive impacts and challenges throughout the world. The ways in which different societies can make positive responses to these threats are placed firmly in the context of sustainable development and global environmental change.

The Spatial Dimension of Risk: How Geography Shapes the Emergence of Riskscapes (Earthscan Risk in Society)

Authors: Detlef Müller-Mahn (Editor)

Year: 2012

Publisher: Routledge

ISBN: 1849710856

Content: Through its exploration of the spatial dimension of risk, this book offers a brand new approach to theorizing risk, and significant improvements in how to manage, tolerate and take risks. A broad range of risks are examined, including natural hazards, climate change, political violence, and state failure. Case studies range from the Congo to Central Asia, from tsunami in Japan and civil war affected areas in Sri Lanka to avalanche hazards in Austria. In each of these cases, the authors examine the importance and role of space in the causes and

differentiation of risk, in how we can conceptualize risk from a spatial perspective and in the relevance of space and locality for risk governance. This new approach – endorsed by Ragnar Löfstedt and Ortwin Renn, two of the world's leading and most prolific risk analysts – is essential reading for those charged with studying, anticipating and managing risks.

Flash Floods: Forecasting and Warning

Authors: Kevin Sene (Author)

Year: 2013

Publisher: Springer

ISBN: 940075163X

Content: The book describes flash floods - one of the most devastating of natural hazards, which develop in a period of minutes to a few hours. Floods of this type are often characterised by fast flowing deep water and a high debris content which - combined with the short lead time available for warnings - add to the risk to people and property. The main cause of flash flooding is usually heavy rainfall; other causes can include the break- up of ice jams, dam breaches, and the failure of flood defenses and levees. The volume discusses the increasing use of meteorological observation and forecasting techniques to extend the lead time available for warning, combined with hydrological models for the river response. It also presents probabilistic techniques and some current areas of research which include the use of weather radar and satellite data in improving meteorological forecasts, the development of improved forecasting and observation techniques for mountainous regions, and the use of distributed hydrological models specifically adapted for flash flood modelling. This book reviews recent developments in this active research area, with a focus on events caused by heavy rainfall (including debris flows and landslides), but also considering other types of flash flooding, such as that caused by ice jams and dam and levee breaches. The topics covered include meteorological forecasting and monitoring techniques, rainfall-runoff and river modelling, approaches to issuing flood warnings, and some of the societal and behavioural aspects of providing an effective emergency response. A number of international examples of the application of these techniques are also provided. The book is potentially useful on civil engineering, water resources, meteorology and hydrology courses (and for post graduate studies) but is primarily intended as a review of the topic for a wider audience.

List of already listed new books in back issues:

Unraveling Environmental Disasters

Authors: Daniel Vallerio, Trevor Letcher (Editor)

Year: 2012

Publisher: Elsevier

ISBN: 0123970261

Disaster Resiliency: Interdisciplinary Perspectives (Routledge Research in Public Administration and Public Policy)

Authors: Naim Kapucu, Christopher V. Hawkins, Fernando I. Rivera (Editors)

Year: 2012

Publisher: Routledge

ISBN: 0415626897

Handbook of Hazards and Disaster Risk Reduction

Authors: Ben Wisner, JC. Gaillard, and Ilan Kelman (Editors)

Year: 2012

Publisher: Routledge

ISBN: 0415590655

Industrial Disasters, Toxic Waste, and Community Impact: Health Effects and Environmental Justice Struggles Around the Globe

Authors: Francis O. Adeola (Author)

Year: 2012

Publisher: Lexington Books

ISBN: 0739147463

Climate Change and Disaster Risk Management

Authors: Walter Leal Filho (Editor)

Year: 2012

Publisher: Springer

ISBN: 3642311091

Heavy-Tailed Distributions in Disaster Analysis (Advances in Natural and Technological Hazards Research)

Authors: V. Pisarenko, M. Rodkin (Authors)

Year: 2012

Publisher: Springer

ISBN: 9400732856

Integrated Risk Governance: Science Plan and Case Studies of Large Scale Disasters

Authors: Peijun Shi, Carlo Jaeger, Qian Ye (Editor)
Year: 2012
Publisher: Springer
ISBN: 3642316409

Risk Assessment Tools, Techniques, and Their Applications

Authors: Lee T. Ostrom and Cheryl Wilhelmsen (Editor)
Year: 2012
Publisher: Wiley
ISBN: 047089203X

Disaster Management: International Lessons in Risk Reduction, Response and Recovery

Authors: Alejandro Lopez-Carresi (Author) and Ben Wisner (Editor)
Year: 2012
Publisher: Earthscan
ISBN: 1849713472

Encyclopedia of Natural hazards (Encyclopedia of Earth Sciences Series)

Authors : Peter Bobrowsky (Editor)
Year: 2012
Publisher: Springer
ISBN: 9400702639

Disaster Risk Management: Conflict and Cooperation

Authors: S. Ranjan Sensarma and Atanu Sarkar (Editors)
Year: 2012
Publisher: Concept Publishing Company
ISBN: 8180698491

Extreme Environmental Events: Complexity in Forecasting and Early Warning

Authors: Robert A. Meyers (Editor)
Year: 2011
Publisher: Springer
ISBN: 978-1441976963

Dynamics of Disaster: Lessons on Risk, Response and Recovery

Authors: Rachel A Dowty et al. (Editor)
Year: 2011

Publisher: Earthscan Publications Ltd
ISBN: 978-1849711432

Calculating Catastrophe

Authors: Gordon Woo
Year: 2011
Publisher: Imperial College Press
ISBN: 978-1848167384

Global Aerospace Monitoring and Disaster Management

Authors: Anatoly N., Menshikov, Valery A., Urlichich, Yuri M.
Year: 2011
Publisher: Springer
ISBN: 978-3-7091-0809-3

The Wenchuan Earthquake of 2008

Authors: Chen, Yong, Booth, David C.
Year: 2011
Publisher: Springer
ISBN: 978-3-642-21158-4

Coping with Climate Change: Principles and Asian Context

Authors: Chandrappa, Ramesha, Gupta, Sushil, Kulshrestha, Umesh Chandra
Year: 2011
Publisher: Springer
ISBN: 978-3-642-19673-7

In Extremes: Disruptive Events and Trends in Climate and Hydrology

Authors: V. Pisarenko, M. Rodkin
Year: 2011
Publisher: Springer
ISBN: 978-3-642-14862-0

Post-Disaster Reconstruction of the Built Environment: Rebuilding for Resilience

Authors: Dilanthi Amaratunga, Richard Haigh
Year: 2011
Publisher: Wiley
ISBN: 978-1-4443-3356-5

Environmental Hazards and Disasters: Contexts, Perspectives and Management

Authors: Bimal Kanti Paul

Year: 2011
Publisher: John Wiley and Sons Ltd
ISBN: 9780470660027

Crisis Information Management: Communication and Technologies

Authors: Christine Hagar
Year: 2011
Publisher: Woodhead Publishing Ltd
ISBN: 9781843346470

The Causes and Behavioral Consequences of Disasters

Authors:
Year: 2011
Publisher: Springer
ISBN: 9781461403166

Forecasting, Warning and Responding to Transnational Risks

Authors: Chiara De Franco, Christoph O. Meyer
Year: 2011
Publisher: Palgrave Macmillan
ISBN: 9780230297845

Disaster Education

Authors: Rajib Shaw, Koichi Shiwaku, Yukiko Takeuchi
Year: 2011
Publisher: Emerald Group Publishing Limited
ISBN: 9780857247377

The Economic Impacts of Natural Disasters

Authors: Debarati Guha-Sapir, Indhira Santos, Alexandre Borde
Year: 2011
Publisher: Earthscan Ltd
ISBN: 9781844077694

Heavy-Tailed Distributions in Disaster Analysis

Authors: V. Pisarenko, M. Rodkin
Year: 2010
Publisher: Springer, New York
ISBN: 978-9048191703

When the Planet Rages: Natural Disasters, Global Warming and the Future of the Earth

Authors: Charles Offices, Jake Page

Year: 2010

Publisher: Oxford University Press

ISBN: 978-0195377019

Early Warning for Geological Disasters

Authors: Friedemann Wenzel, Jochen Zschau (editor)

Year: 2010

Publisher: Springer, Berlin

ISBN: 978-3642122323

Natural Hazards, UnNatural Disasters

Authors: World Bank, United Nations

Year: 2010

Publisher: Word Bank

ASIN: 978-0739124161

Mitigation of Natural Hazards and Disasters: International Perspectives

Authors: C. Emdad Haque (editor)

Year: 2010

Publisher: Springer

ISBN-10: 9048167965

Systems Approach to Management of Disasters: Methods and Applications

Authors: Slobodan P. Simonovi

Year: 2010

Publisher: Wiley

ISBN-10: 978-0739124161

Extreme Events in Nature and Society

Authors: Sergio Albeverio, Volker Jentsch, Holger Kantz

Year: 2010

Publisher: Springer

ISBN: 3642066798

Natural and Anthropogenic Disasters: Vulnerability, Preparedness and Mitigation

Authors: M.K. Jha (editor)

Year: 2010

Publisher: Springer

ISBN: 9048124972

Natural Disasters as Interactive Components of Global-Ecodynamics

Authors: Kirill Ya Kondratyev, Vladimir F. Krapivin, Costas A. Varostos

Year: 2010

Publisher: Springer

ISBN: 3642068448

Catalogue of Risks: Natural, Technical, Social and Health Risks

Authors: Dirk Proske

Year: 2010

Publisher: Springer

ISBN: 3642098487

In Extremis: Disruptive Events and Trends in Climate and Hydrology

Authors: Jürgen Kropp, Hans-Joachim Schellnhuber (editor)

Year: 2010

Publisher: Springer

ISBN: 364214862X

Natural Disasters and Sustainable Development

Authors: Riccardo Casale, Claudio Margottini (editor)

Year: 2010

Publisher: Springer

ISBN: 3642075800

Assessing Vulnerability to Global Environmental Change: Making Research Useful for Adaptation Decision Making and Policy [Paperback]

Authors: Anthony G. Patt et al. (editor)

Year: 2010

Publisher: Springer

ISBN: 1849711542

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Integrated national-scale assessment of wildfire risk to human and ecological values
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Spatial vulnerability units - Expert-based spatial modelling of socio-economic vulnerability in the Salzach catchment, Austria
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(2012) *Risk Analysis*, 32 (4), pp. 616-632.

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¹ Selected articles are based on citation counts within Scopus (a bibliographic database containing abstracts and citations for peer-reviewed academic journal articles) starting from 2009 to 2013. For this issue only the top 20 cited papers are selected which had a focus on integrated disaster risk management. Comments about additional focus on specific aspects of integrated disaster risk management in future newsletters very much welcomed.

Adaptation to climate change in Africa: Challenges and opportunities identified from Ethiopia

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Curone, D., Secco, E.L., Tognetti, A., Loriga, G., Dudnik, G., Risatti, M., Whyte, R., Bonfiglio, A., Magenes, G.

Smart garments for emergency operators: The ProeTEX project

(2010) *IEEE Transactions on Information Technology in Biomedicine*, 14 (3), art. no. 5443746, pp. 694-701.

Birkmann, J., von Teichman, K.

Integrating disaster risk reduction and climate change adaptation: Key challenges-scales, knowledge, and norms

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An integrated socio-environmental framework for glacier hazard management and climate change adaptation: Lessons from Lake 513, Cordillera Blanca, Peru

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Integrated modelling for flood risk mitigation in Romania: Case study of the Timis-Bega river basin

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Comprehensively defending high risk events with low probability

(2011) *Dianli Xitong Zidonghua/Automation of Electric Power Systems*, 35 (8), pp. 1-11.

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application
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9. Miscellaneous

Other Newsletters:

- **IISD Reporting Services:** Free Newsletters and lists for environment and sustainable development issues.
Website: <http://www.iisd.ca/email/subscribe.htm>
- **The International Emergency Management Society Newsletter (TIEMS)**
Website: <http://www.tiems.info/>
- **Natural Hazards Group Newsletters:**
Website: http://www.agu.org/focus_group/NH/about/newsletters/
- **Disaster Research:** DISASTER RESEARCH (DR) is a moderated newsletter for creators and users of information about hazards and disasters.
Website: <http://www.colorado.edu/hazards/dr/currentdr.html>
- **Emergency Manager's Weekly Report:**
Website:
<http://www.6pinternational.com/news.php?category=Emergency%20Managers%20Weekly%20Report&>
- **KatNet-Newsletter:** (mostly in German language)
Website: <http://www.katastrophennetz.de/>
- **EM-DAT: International Disaster Database Newsletter (CRED)**
Website: <http://www.emdat.be/publications>
- **DSCRN: Disaster and Social Crisis Research Network Newsletter**
Website: <http://www.dscrn.org/cms/index.php?page=newsletter>
- **International Institute for Sustainable Development Newsletter: IISD Reporting Services.**
Website: Climate Change: <http://climate-i.iisd.org/about-the-climate-i-mailing-list/>
General Information: <http://www.iisd.ca/>
- **Society of Risk Analysis Newsletter:**
Website: <http://www.sra.org/newsletter.php>
- **ULC Institute for Risk and Disaster Reduction Newsletter:**
Website: <http://www.ucl.ac.uk/rdr/irdr/newsletter/>

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