International Society for Integrated Disaster Risk Management



IDRiM Newsletter Issue 15, February 2018

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1. IDRIM NEWS

We are proud to announce that the 9th Conference of the International Society for Integrated Disaster Risk Management will be held for the first time in Australia. This exciting event will be hosted by CSIRO's innovation hub Data61 in the vibrant city of Sydney. Some preliminary information is given below; there will a separate call for abstracts and proposals as well as more detailed information in the next couple of weeks.

IDRiM 2018, 2-4 October 2018, Sydney, Australia

Disaster risk management in the Australian context

As a country affected by many natural hazards such as severe bushfires and large scale coastal and catchment flooding events, Australia recognises the flagship role that the integrated disaster risk management community has in this area. Several initiatives have been developed in Australia in recent years which entail rethinking how response and recovery processes are conceptualised and practiced, and call for new approaches to exploring how these processes can be woven into anticipatory reduction and readiness planning.

- The importance of Data in Risk Management
- The conference will explore data as a central component of present and future risk management practices

The role of data in disaster risk management

As Australia's national science agency CSIRO holds a unique place in the Australian landscape at the crossroads of academia, government and industry. Recognising the growing role of data in our everyday lives, CSIRO

has recently created Data61 as its new innovation hub with digital innovation and data integration at the heart of its mission. Data61, along with two other key CSIRO business units, Land & Water and Oceans & Atmosphere, are driving a nation-wide all-hazards planning and adaptation initiative which brings together researchers, emergency services, government and the community. They deliver innovative approaches to build a more resilient and sustainable society able to flexibly adapt to the growing threat of natural disasters.

- Disaster Risk Management as a cross disciplinary challenge
- We aim to bring together all stakeholders together spanning across academia, industry, research and government for an innovative and future focussed event.

Transdisciplinary approaches to address contemporary challenges

The changing climate and accompanying uncertainty is creating another level of complexity in our continued endeavour to manage risks associated with natural disasters. The conference will focus on transdisciplinary approaches which will bring together a broad range of stakeholders, with emphasis on inclusion of participants from all facets of natural disaster risk related work, such as engineers, earth science professionals, emergency managers, urban planners, social scientists, community groups, environmental practitioners and policy makers.

Dates

- Tuesday 2nd October, 2018
- Wednesday 3rd October, 2018
- Thursday 4th October, 2018

Venue

John Niland Scientia Building University of New South Wales, Kensington NSW 2033, Australia

Website: http://www.idrim.org/?p=1730

2. Other NEWS

Global Risks Report 2018 Published

From the Press Release:

(Source: http://reports.weforum.org/global-risks-2018/press-release/)

"World Enters Critical Period of Intensified Risks in 2018

- Structural and interconnected nature of risks in 2018 threaten the very system on which societies, economies and international relations are based, according to *The Global Risks Report 2018*
- The positive economic outlook gives leaders the opportunity to tackle systemic fragility affecting societies, economies, international relations and the environment, according to the report
- Environmental risks dominate the Global Risk Perception Survey for the second year running; when we asked about risk trajectories in the coming year, 59% of answers pointed to increasing risks
- Read the full report <u>here</u>.

London, United Kingdom, 17 January 2018 — The prospect of strong economic growth in 2018 presents leaders with a golden opportunity to address signs of severe weakness in many of the complex systems that underpin our world, such as societies, economies, international relations and the environment. That is the message of *The Global Risks Report 2018*, published by the World Economic Forum today.

The report – which every January shares the perspectives of global experts and decision-makers on the most significant risks that face the world – cautions that we are struggling to keep up with the accelerating pace of change. It highlights numerous areas where we are pushing systems to the brink, from extinction-level rates of biodiversity loss to mounting concerns about the possibility of new wars.

Our annual Global Risks Perception Survey (GRPS) suggests that experts are preparing for another year of heightened risk. When we asked nearly 1,000 respondents for their views about the trajectory of risks in 2018, 59% of their answers pointed to an intensification of risks, compared with 7% pointing to declining risks.

A deteriorating geopolitical landscape is partly to blame for the pessimistic outlook in 2018, with 93% of respondents saying they expect political or economic confrontations between major powers to worsen and nearly 80% expecting an increase in risks associated with war involving major powers.

However, as in 2017, the environment was by far the greatest concern raised by experts. Among the 30 global risks the experts were asked to prioritize in terms of likelihood and impact, all five environmental risks – extreme weather; biodiversity loss and ecosystem collapse; major natural disasters; man-made environmental disasters; and failure of climate-change mitigation and adaptation – were ranked highly on both dimensions. Extreme weather events were seen as the single most prominent risk.

"A widening economic recovery presents us with an opportunity that we cannot afford to squander, to tackle the fractures that we have allowed to weaken the world's institutions, societies and environment. We must take seriously the risk of a global systems breakdown. Together we have the resources and the new scientific and technological knowledge to prevent this. Above all, the challenge is to find the will and momentum to work together for a shared future," said Professor Klaus Schwab, Founder and Executive Chairman, World Economic Forum.

According to the GRPS, *cyber threats* are growing in prominence, with *large-scale cyberattacks* now ranked third in terms of likelihood, while *rising cyber-dependency* is ranked as the second most significant driver shaping the global risks landscape over the next 10 years.

John Drzik, President of Global Risk and Digital, Marsh said: "Geopolitical friction is contributing to a surge in the scale and sophistication of cyberattacks. At the same time cyber exposure is growing as firms becoming more dependent on technology. While cyber risk management is improving, business and government need to invest far more in resilience

efforts if we are to prevent the same bulging 'protection' gap between economic and insured losses that we see for natural catastrophes."

Economic risks, on the other hand, feature less prominently this year, leading some experts to worry that the improvement in global GDP growth rates may lead to complacency about persistent structural risks in the global economic and financial systems. Even so, inequality is ranked third among the underlying risk drivers, and the most frequently cited interconnection of risks is that between *adverse consequences of technological advances* and *high structural unemployment or under-employment*.

"Future Shocks"

The growing complexity and interconnectedness of our global systems can lead to feedback loops, threshold effects and cascading disruptions. Sudden and dramatic breakdowns – future shocks – become more likely. In this year's *Global Risks Report* we present 10 short "what-if" scenarios, not as predictions but as food for thought to encourage world leaders to assess the potential future shocks that might rapidly and radically disrupt their worlds:

- **Grim reaping**: Simultaneous breadbasket failures threaten sufficiency of global food supply
- A tangled web: Artificial intelligence "weeds" proliferate, choking performance of the internet
- The death of trade: Trade wars cascade and multilateral institutions are too weak to respond
- **Democracy buckles**: New waves of populism threaten social order in one or more mature democracies
- **Precision extinction**: Al-piloted drone ships take illegal fishing to new and even more unsustainable levels
- Into the abyss: Another financial crisis overwhelms policy responses and triggers period of chaos
- **Inequality ingested**: Bioengineering and cognition-enhancing drugs entrench gulf between haves and have-nots
- War without rules: State-on-state conflict escalates unpredictably in the absence of agreed cyberwarfare rules
- **Identity geopolitics**: Amid geopolitical flux, national identity becomes a growing source of tension around contested borders



Alison Martin, Group Chief Risk Officer, Zurich Insurance Group commented: "Extreme weather events were ranked again as a top global risk by likelihood and impact. Environmental risks, together with a growing vulnerability to other risks, are now seriously threatening the foundation of most of our commons. Unfortunately we currently observe a "too-little-toolate" response by governments and organisations to key trends such as climate change. It's not yet too late to shape a more resilient tomorrow, but we need to act with a stronger sense of urgency in order to avoid potential system collapse.

The Global Risks Report 2018 has been developed with the invaluable support throughout the past year of the World Economic Forum's Global Risks Advisory Board. It also benefits from ongoing collaboration with its Strategic Partners Marsh & McLennan Companies and Zurich Insurance Group and its academic advisers at the Oxford Martin School (University of Oxford), the National University of Singapore and the Wharton Risk Management and Decision Processes Center (University of Pennsylvania)."

GLOBAL CLIMATE RISK INDEX 2018

From the Press release:

Source: https://germanwatch.org/en/14674

"Climate Risk Index shows vulnerability of small island states

Increased intensity of storms takes a toll on small island states and poor countries / Since 1997, over 520,000 people have been killed by more than 11,000 extreme weather events

island states are amongst the countries most impacted by extreme weather events worldwide. A number of developing countries regularly already have to address weather catastrophes, especially poorer countries like Haiti, Sri Lanka or Viet Nam are facing great challenges. These are some of the key findings of the Climate Risk Index published by Germanwatch today at the climate summit in Bonn.

"Recent storms with intensity levels never seen before have had disastrous impacts on island states", says David Eckstein of Germanwatch, one of the authors of the index. "In 2016, Haiti was hit by the strongest hurricane in over 50 years and Fiji was struck by the strongest tropical cyclone ever recorded on the island. This is why Haiti ranks first and Fiji ranks third in the index of the most-impacted countries in 2016." In many of the countries most affected by natural disasters in the past year, extreme rainfall followed periods of severe drought. In Zimbabwe (No. 2 in 2016) for example, rain caused dramatic flooding that killed 250 people and left thousands of people homeless.

In the past 20 years from 1997 to 2016, Honduras, Haiti and Myanmar were impacted the strongest, according to the long-term index. In this period, globally over 520,000 fatalities were directly linked to more than 11,000 extreme weather events. The economic damages amounted to approximately US\$ 3.16 trillion (calculated in purchasing-power parity, PPP).

The vulnerability of poorer countries becomes visible in the long-term index: nine of the ten countries most affected between 1997 and 2016 are developing countries with low or lower middle income per capita. "But industrialised nations must also do more to address climate impacts that

they are beginning to feel at home. Effective climate protection is therefore also in the self-interest of these countries ", Eckstein emphasises. "For instance, the United States ranks tenth in the 2016 index, with 267 fatalities and US\$ 47.7 billion in damages in that year caused by extreme weather."

Some countries - like Haiti, India, Sri Lanka and Viet Nam - are repeatedly hit by extreme weather and have no time to fully recover. Eckstein: "Especially in smaller states, the consequences are hardly bearable. This underlines how important it is to support poor countries in climate change adaptation as well as in dealing with climate-induced loss and damage. Especially at a climate summit under Fijian presidency these issues have to receive the highest priority."

Germanwatch receives its data for calculating the Global Climate Risk Index from the NatCatSERVICE database of the reinsurance company Munich Re, as well as the socio-economic data of the International Monetary Fund (IMF). Even though the evaluation of the rising damages and fatalities do not allow for simple conclusions on the influence of climate change on these events, it does give a good impression of the vulnerability of nations.

About

Germanwatch:

Germanwatch, based in Bonn and Berlin (Germany), is an independent development and environmental organisation which works for sustainable global development. Germanwatch actively promotes North-South equity and the preservation of livelihoods."

Source: https://germanwatch.org/en/14638

The GAR Atlas Unveiling global disaster risk Published

Background:

"The GAR Atlas presents the output of a Global Risk Model (GRM) that can estimate the disaster risk associated with different kinds of hazard faced by national economies throughout the world. The model uses a state-of-the-art probabilistic approach analogous to that applied by the catastrophe modelling and insurance industry over recent decades. This model has been developed by a consortium of leading scientific and technical organisations, under the coordination of UNISDR. Initial results from the model have already been previewed in GAR13 and GAR15.

The GAR Atlas displays the risk associated with earthquakes, tsunamis, riverine flooding, cyclonic winds and storm surge with a global level of observation and a national level of resolution. By using the same methodology, arithmetic and exposure model to calculate the risk for all these hazards, the GAR Atlas provides globally comparable multi-hazard risk metrics and enables comparisons of risk levels between countries and regions and across hazard types. For example, the values associated with earthquake risk in Indonesia and flood risk in Colombia, and their relevance for national economies, can now be compared because they have been calculated using the same methodological framework. In this way, the GAR Atlas facilitates a better understanding of the global risk landscape, enabling the estimation of the order of magnitude of probable losses in each country, and taking into account the risk contributions from different hazards. The GAR Atlas is the first of its kind that is non-proprietary, completely open and with multi-hazard global coverage.

The GAR Atlas: Unveiling Global Disaster Risk is an augmented reality publication. It has been designed to be read and explored using an IOS or Android tablet. Most of the information contained in the GAR Atlas can only be accessed in this way." (Source: https://www.unisdr.org/we/inform/publications/53086)

Website: http://www.preventionweb.net/english/hyogo/gar/atlas/

Joint Research Center Published Major Report Science for Disaster Risk Management 2017 Knowing better and losing less

The JRC has recently released its report "Science for Disaster Risk Management 2017: Knowing Better and Losing Less". This 550-page report summarizes the state of science relevant to disaster risk management from a European perspective, with the aim to encourage potential synergies across disciplines, and to identify gaps in scientific knowledge for future research. The preparation of the report succeeded in pulling together a network of 273 contributors from 26 mostly European countries and 172 organizations. It has been endorsed by 11 European Commission Services and has been officially released at the Global Platform for Disaster Risk Reduction 2017. in May The full report and the Executive Summary can be downloaded from here: http://drmkc.jrc.ec.europa.eu/knowledge/Challenges-Sharing

From the Preface:

"This report aims to provide reviews of scientific solutions and their practical use in various areas of DRM in Europe. It is comprehensive in scope but selective in topic and is written in a format that is intended to be accessible to all DRM actors. The reviews of the scientific evidence base are summaries of (1) recent advances/outcomes of EU research projects, (2) relevant national work and (3) relevant international work. The report aims to bridge science and policy as well as operation communities. The intended audience consists of practitioners and policy makers in addition to experts from different scientific disciplines. It seeks to understand the scientific issues of relevance to their work; specifically civil protection operations and disaster risk policy, but equally climate adaptation policy. The audience includes government officials at EU, national, regional and local levels interested in finding better ways to use science, and also scientists to help them understand work in other disciplines that would allow the identification of possible cross-sectoral synergies and needs from practitioners.

Understanding disaster risk to manage it is one of the main focus of Sendai Framework. This perspective already opens two big issues: understanding disaster risk with the focus on scientific evidence, and managing disaster risk with the focus on knowledge applied by different actors. In order to convey the DRMKC's mission of bridging science and the policy/operation community, the issue of communicating disaster risk has been introduced with a strong focus on how to successfully overcome barriers. The Disaster Risk Management Knowledge Centre has produced this flagship science report as a contribution to

the Science and Technology Roadmap of the Sendai Framework for Disaster Risk Reduction. This report is the result of the multi-sectorial and multidisciplinary networking process and represents the combined effort of more than two hundred experts. It will support the integration of science into informed decision making through synthesizing and translating evidence for disaster risk management and strengthening the science policy and science-operation interface.

The scope of the report is divided conceptually into three distinct parts: understanding disaster risk, communicating disaster risk and managing disaster risk, forming the "bridge concept" of the report. The "Understanding disaster risk" part has been split into two chapters: Chapter 2, covering risk assessment methodology and examples in general, and Chapter 3 that provides a comprehensive overview of hazard related risk issues, the structure of which follows the Sendai taxonomy of hazard classification. Chapter 4 on "Communicating disaster risk" tackles many issues on communication in different phases of DRM among different actors. Chapter 5 "Managing disaster risk" addresses the governance issues of the full disaster risk cycle. The first and last chapter wrap the scope of the report into a whole. Chapter 1 "Current status of disaster risk management and policy framework" aims to explain why recent global and European initiatives are beginning to seek help to strengthen society's resilience by using science and technology. The final Chapter 6 "Future challenges of disaster risk management" aims to inform decision makers and practitioners of existing science that should find its way into legislative form and practice as well as tackling a much more challenging purpose: to recognise knowledge gaps that could serve as valuable reference based input for a call." Preface: Horizon2020 (From the Source: http://drmkc.jrc.ec.europa.eu/knowledge/Challenges-Sharing)

Website: http://drmkc.jrc.ec.europa.eu/knowledge/Challenges-Sharing

3. Book Review

Loss and Damage from Climate Change: Concepts, Methods and Policy Options.

Editors: Mechler, R., Bouwer, L., Schinko, T., Surminski, S., Linnerooth-Bayer, J. Springer, 2018

There has been a long history of formal and informal deliberations regarding climate justice with reference to sharing the burdens associated with responses to climate change. The focus has predominantly been on climate mitigation responses, yet, over the last few years impact, adaptation and risk issues have moved into the spotlight, to some extent owing to the fact that evidence is mounting that climate change is already having an impact, particularly in terms of affecting extreme events and vulnerable countries. In 2013, the Warsaw Loss and Damage Mechanism (WIM) has been set up by climate negotiators at COP 19 for "dealing with climate-related effects, including residual impacts after adaptation." Since then, the WIM has been subject to very contentious debate: While some considered it the 3rd building block of negotiations under the UNFCCC, others saw it merely as an attempt to establish liability, and suggest its remit would be better covered under negotiations dealing with climate adaptation. The UNFCCC in 2014 set up an Executive Committee and devised a work programme to inform the deliberations. The WIM has been finally endorsed at COP as a stand-alone article of the Paris agreement. The exact focus and form of this mechanism is largely unclear and will see heavy debate over the coming years scheduled for developing proposals, whole a first stocktaking is planned for COP 22.

While the UNFCCC work programme will inform deliberations along the terms of reference identified, there is need and scope for more broadbased discussions taking a research focus while aiming to inform policy. A number of promising avenues exist and have been preliminarily identified for taking the debate further, such as focussing on climate risk management and current international efforts for promoting disaster risk management. There have been a few studies reporting on empirical

assessments. Yet, overall a comprehensive assessment exercise to identify the grounds for Loss and Damage (e.g., compared to adaptation), key principles to build on, as well as evidence regarding risk "beyond adaptation" is missing.

The book by Mechler et al. (2018) is a stocktaking exercise highlighting the state of the art of research, political debate and policy options on Loss and Damage and the debate on risks "beyond adaptation." The book is aimed at informing research, policy-making and practice and the public throughout regarding issues related to the WIM. It also goes beyond informing this policy mechanism by providing evidence-based research into the risks "beyond adaptation" faced by individuals communities and countries. The book is composed of 5 sections, including setting the stage with 3 chapters, critical issues for shaping the discourse with 6 chapters, geographic perspectives and cases with 4 chapters, research and practice with 4 chapters, and last but not least policy options and other actions for the L&D discourse consisting of 4 chapters.

The book offers and discusses successfully the multiple perspectives on Loss and Damage, with a particular focus on climate extremes and climate risk management. Importantly, it thoroughly debates the politics and institutional dimensions of the discourse focusing on the principles and definitions of Loss and Damage. This includes important ethical as well as normative aspects which are central to the whole discourse but very often not explicitly stated. It therefore should support the science-policy dialogue on the WIM, with the focus on the identification of practical and evidencebased (e.g. through modelling approaches) policy and implementation options for its operationalisation (e.g. within simulation methods). Given the increased interest in Loss and Damage the book is a very relevant contribution to the science-policy dialogue, with an emphasis on identifying practical and evidence-based policy and implementation options for its operationalisation as well as subsequent use in quantitative risk management approaches.

Natech Risk Assessment and Management Reducing the Risk of Natural-Hazard Impact on Hazardous Installations

Elisabeth Krausmann, Ana Maria Cruz and Ernesto Salzano Elsevier, 2017: 254 Pages

Effects of natural disaster events are usually separated into social, environmental and economic effects which can be further subdivided into direct and secondary effects. An important subcategory which receives increasing awareness are so-called Natech risks, i.e. risks of technological secondary effects, such as the release of hazardous materials, fires or explosions that are triggered by natural hazard events. The release can be chemical, biological or radiological in nature but Krausmann et al. especially focus on chemical releases. The book is much-needed and timely as it presents the whole spectrum of issues relevant for the assessment, management, as well as the reduction of Natech risks in a coherent way. It not only presents the current state-of-the-art of Natech risk assessment but also succeeds in presenting the ideas in a way so that it can be read by a broad audience including risk bearers from governments and industries, as well as risk practitioners and academia. In total, 15 chapters and a glossary give detailed information on the modeling and assessment, as well as on assessment methodologies, tools for Natech risks and corresponding risk reduction options.

The book can be seen as structured into three main sections. After a short introduction in chapter 1 into the issue and relevancy of Natech events, chapter 2 gives some general and 5 detailed examples of past Natech events, including major events such as the Tohoku Earthquake and Tsunami in 2011 in Japan, or Hurricanes Katrina and Rita in 2005 in the United States. Already in this chapter one can learn a great deal in the significance and unique characteristics of Natech events, as well as learn lessons which are discussed in more detail in chapter 3 focusing on different types of natural hazards. Chapter 4 ends the introduction to Natech risk by giving a detailed picture of current national approaches and international activities to manage Natech risks. This ends the introductory section of the book.

While the first 4 chapters gave an overview of Natech risks, chapters 5 and 6 provide an engineering perspective to the problem. Chapter 5 focuses on natural hazard characterization, including its prediction and measurement, with a specific focus on earthquakes, tsunamis and floods. The methods discussed there are now standard in quantitative risk management of extreme events, however, the discussion serves well as a prerequisite and for a comparison with technological hazard characterization discussed afterwards in chapter 6. Both chapters can be seen as preliminaries for the discussion of Natech risk and its assessment which is comprehensively addressed in chapter 7. Especially the detailed discussion of the Natech risk-assessment process from a general perspective is rewarding.

addressed in chapter 7. Especially the detailed discussion of the Natech risk-assessment process from a general perspective is rewarding. Afterwards, chapters 8, 9 and 10 discuss selected quantitative, qualitative and semi-quantitative Natech risk-analysis methodologies. Among others this includes the web-based software framework RAPID-N which was also used in chapter 10 for a detailed full case-study site application for earthquake impacts on a chemical installation housing flammable and toxic substances. Also a qualitative method called PANR is introduced to show how diagnostic tools at the community level can help to promote participation in the assessment process of local government officials and other risk bearers. Fully quantitative risk assessment tools are presented in chapter 9 including the so-called ARIPAR software tool which features a Natech module used for a case study analysis in chapter 11. Another software based application presented in chapter 12 is called RISKCURVES which focuses on a refinery on the Mediterranean coast. The case study chapters are especially rewarding as they show the full risk assessment circle from an applied perspective which includes the handling of uncertainties, as well as the required information necessary for performing such a task. This ends section 2 of the book.

Risk governance is a core issue now in disaster risk management and this is the same for Natech risks. Chapters 13 and 14 focus on both structural as well as organizational measures for reducing disaster risk and therefore avoid the usual lack of discussion on how to combine purely engineering and soft measures. Again in both chapters the more general discussions are supported by concrete examples which make the ideas of each prevention or mitigation measure better understandable. The call for governance especially Natech risk and the emphasis on the interdependencies of different systems makes chapter 14 a link to all other



chapters discussed before. The call for interdisciplinarity in the final chapter 15, mostly due to the fact that Natech is cutting across several disciplines and many different stakeholder groups are involved, is essential not only for Natech risks but it is true for disaster risk in general. The profound understanding of Natech risk assessment and the application of it by the authors explained in detail in this book, as well as the extensive references within each chapter will make the book a must have for all disaster risk experts in the field. It will also be beneficial to help finding better ways to integrate Natech risks within broader risk frameworks currently developed, especially under the light of the Sendai Framework for Disaster Risk Reduction.

Book reviewed by Hochrainer-Stigler, S., IIASA, Austria

4. Conference Announcements

• 2 October – 4 October 2018

IDRiM 2018

The 9th Conference of the International Society for Integrated Disaster Risk Management (IDRiM 2018) will take place in Sydney, Australia from 2 – 4 October 2018. The event will be hosted by CSIRO's innovation hub Data61.

Website: http://www.idrim.org/?p=1730

• 5 March – 6 March 2018

ICDEM 2018

20th International Conference on Disaster and Emergency Management aims to bring together leading academic scientists, researchers and research scholars to exchange and share their experiences and research results on all aspects of Disaster and Emergency Management. It also provides a premier interdisciplinary platform for researchers, practitioners and educators to present and discuss the most recent innovations, trends, and concerns as well as practical challenges encountered and solutions adopted in the fields of Disaster and Emergency Management.

• 17 April – 18 April 2018

Asian Science and Technology Conference on Disaster Risk Reduction

Venue: Xinhai Jinjiang Hotel, Beijing, China

The Sendai Framework emphasizes the role of science and technology. It calls to prioritize the development and dissemination of science-based risk knowledge, methodologies and tools, science and technology work on DRR through existing networks and research institutions and strengthened interface between science and policy to support all four priority areas: understanding disaster risk; disaster risk governance; investing in DRR for resilience; and enhancing disaster preparedness for response and to build back better. This is envisaged to be done with support of the United Nations Office for Disaster Risk Reduction (UNISDR) Scientific and Technical Advisory Group (STAG).

Further, the 2017 Global Platform for Disaster Risk Reduction (May 2017, Cancun, Mexico) highlighted the need to 'bridge the gap between science and technology and policy-making to ensure that the strategies required by 2020 are sound, including that they anticipate emerging risk patterns'. The 2nd Asia Science and Technology Conference will provide an opportunity to the science, research, academia community in Asia to continue the much-needed science-policy dialogue to ensure that implementation of disaster risk reduction measures at all level are sound science and technology based.

Website: http://www.astcdrr2018.org/

• 26 August – 30 August 2018

IDRC Davos 2018

The International Disaster and Risk Conferences (IDRC) - the world's leading conferences on integrative risk management. A unique community of business leaders, decision makers, practitioners, international organisations, NGO, and scientists committed to find solutions to the risks posed at societies and organisations today.

Website: https://idrc.info/

• 22 October – 24 October 2018

UN World Data Forum 2018

The UN World Data Forum 2018 will be hosted by Federal Competitiveness and Statistics Authority, of United Arab Emirates from 22 to 24 October 2018, with support from the Statistics Division of the UN Department of Economic and Social Affairs, under the guidance of the United Nations Statistical Commission and the High-level Group for Partnership, Coordination and Capacity-Building for Statistics for the 2030 Agenda for Sustainable Development.

Website: https://undataforum.org/WorldDataForum/

5. Internet Resource List

- Global Alliance of Disaster Research Institutes http://www.gadri.net/
- Tangible Earth, including ipad android version. http://www.tangible-earth.com/en/
- Emergency Events Database EM-DAT http://www.emdat.be/
- World Economic Forum Database http://reports.weforum.org/
- Global Assessment Report and UNISDR https://www.unisdr.org/we/inform/gar
- Munich NatCatService http://www.munichre.com/en/reinsurance/business/nonlife/natcatservice/index.html
- 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. http://drh.edm.bosai.go.jp/
- MCEER: Collection of disaster management resources, including international, federal, state, local and non-profit organizations: http://mceer.buffalo.edu/infoservice/reference_services/disasterManagementRes ources.asp
- Staffordshire Raynet: Disaster and Emergency Management on the Internet. Long list of websites for various disasters and databases. http://www.keele.ac.uk/depts/por/disaster.htm
- Internet Resources for Disaster Studies: University of Delaware Library http://www2.lib.udel.edu/subj/disasters/internet.htm
- FEMA Federal Emergency Management Agency: Focus is on the US http://www.fema.gov/index.shtm
- EDEN Extension Disaster Education Network: Reducing the Impact of Disasters Through Education http://eden.lsu.edu/EDENCourses/Pages/default.aspx
- Disaster Handbook: University of Florida. http://disaster.ifas.ufl.edu/links.htm
- Disaster Management: Royal Roads University. http://libguides.royalroads.ca/content.php?pid=64941&sid=480216
- Natural Hazards and Disaster Information Resources: University of Colorado at Boulder (including newsletter). http://www.colorado.edu/hazards/resources/
- Center for Excellence in Disaster Management and Humanitarian Assistance https://www.cfe-dmha.org/
- Humanitarian Library http://www.humanitarianlibrary.org/
- UNHCR: Emergency Handbook https://emergency.unhcr.org/

 ProVention Consortium: Working in Partnership to Build Safer Communities and Reduce Disaster Risk http://www.proventionconsortium.net/?pageid=29

6. Disaster Related Journals

- Journal of Integrated Disaster Risk Management, IDRIM Journal: http://idrimjournal.com/index.php/idrim
- Economics of Disasters and Climate Change http://www.springer.com/economics/environmental/journal/41885
- Journal of Extreme Events http://www.worldscientific.com/worldscinet/joee
- Weather and Climate Extremes http://www.journals.elsevier.com/weather-and-climate-extremes/
- Climate Risk Management
 http://ees.elsevier.com/clrm/
- Journal of Geography & Natural Disasters http://www.omicsgroup.org/journals/jgndhome.php
- **Disaster Health** http://www.landesbioscience.com/journals/disasterhealth/
- International Journal of Disaster Risk Reduction (IJDRR) http://www.elsevier.com/wps/find/journaldescription.cws_home/727506/descriptio n#description
- 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/descriptio n#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+cli matology/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-disasterresilience
- 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.springer.com/13753
- 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

Loss and Damage from Climate Change: Concepts, Methods and Policy Options

Authors: Mechler R. et al.

Year: 2018 Publisher: Springer

ISBN: 978-3319720258

Content: This book provides an authoritative insight on the Loss and Damage discourse by highlighting state-of-the-art research and policy linked to this discourse and articulating its multiple concepts, principles and methods. Written by leading researchers and practitioners, it identifies practical and evidencebased policy options to inform the discourse and climate negotiations. With climate-related risks on the rise and impacts being felt around the globe has come the recognition that climate mitigation and adaptation may not be enough to manage the effects from anthropogenic climate change. This recognition led to the creation of the Warsaw International Mechanism on Loss and Damage in 2013, a climate policy mechanism dedicated to dealing with climate-related effects in highly vulnerable countries that face severe constraints and limits to adaptation. Endorsed in 2015 by the Paris Agreement and effectively considered a third pillar of international climate policy, debate and research on Loss and Damage continues to gain enormous traction. Yet, concepts, methods and tools as well as directions for policy and implementation have remained contested and vague. Suitable for researchers, policy-advisors, practitioners and the interested public, the book furthermore: discusses the political, legal, economic and institutional dimensions of the issue, highlights normative questions central to the discourse, provides a focus on climate risks and climate risk management, presents salient case studies from around the world.

Risk Modeling for Hazards and Disasters

Authors: Gero Michel (Editor) Year: 2017 Publisher: Elsevier ISBN: 0128040718

Content: Risk Modeling for Hazards and Disasters covers all major aspects of catastrophe risk modeling, from hazards through to financial analysis. It explores relevant new science in risk modeling, indirect losses, assessment of impact and consequences to insurance losses, and current changes in risk modeling practice, along with case studies. It also provides further insight into the shortcomings of current models and examines model risk and ideas to diversify risk assessment. Risk Modeling for Hazards and Disasters instructs readers on how to assess, price and then hedge the losses from natural and manmade catastrophes. This book reviews current model development and science and explains recent changes in the catastrophe modeling space, including new

initiatives covering uncertainty and big data in the assessment of risk for insurance pricing and portfolio management. Edited by a leading expert in both hazards and risk, this book is authored by a global panel including major modeling vendors, modeling consulting firms, and well-known catastrophe modeling scientists. Risk Modeling for Hazards and Disasters provides important insight into how models are used to price and manage risk. Includes high profile case studies such as the Newcastle earthquake, Hurricane Andrew and Hurricane Katrina. Provides crucial information on new ideas and platforms that will help address the new demands for risk management and catastrophe risk reporting. Presents the theory and practice needed to know how models are created and what is and what is not important in the modeling process. Covers relevant new science in risk modeling, indirect losses, assessment of impact and consequences to insurance losses, and current changes in risk modeling practice, along with case studies

Natural Catastrophe Risk Management and Modelling: A Practitioner's Guide

Authors: Kirsten Mitchell-Wallace (Author), Matthew Jones (Author), John Hillier (Author), Matthew Foote (Author)

Year: 2017

Publisher: Wiley-Blackwell

ISBN: 1118906047

Content: This book covers both the practical and theoretical aspects of catastrophe modelling for insurance industry practitioners and public policymakers. Written by authors with both academic and industry experience it also functions as an excellent graduate-level text and overview of the field. Ours is a time of unprecedented levels of risk from both natural and anthropogenic sources. Fortunately, it is also an era of relatively inexpensive technologies for use in assessing those risks. The demand from both commercial and public interests—including (re)insurers, NGOs, global disaster management agencies, and local authorities-for sophisticated catastrophe risk assessment tools has never been greater, and contemporary catastrophe modelling satisfies that demand. Combining the latest research with detailed coverage of state-of-the-art catastrophe modelling techniques and technologies, this book delivers the knowledge needed to use, interpret, and build catastrophe models, and provides greater insight into catastrophe modelling's enormous potential and possible limitations. The first book containing the detailed, practical knowledge needed to support practitioners as effective catastrophe risk modellers and managers. Includes hazard, vulnerability and financial material to provide the only independent, comprehensive overview of the subject, accessible to students and practitioners alike. Demonstrates the relevance of catastrophe models within a practical, decision-making framework and illustrates their many applications. Includes contributions from many of the top names in the field, globally, from industry, academia, and government. Natural Catastrophe Risk Management and Modelling: A Practitioner's Guide is an important working resource for catastrophe modelling analysts and developers, actuaries, underwriters, and

those working in compliance or regulatory functions related to catastrophe risk. It is also valuable for scientists and engineers seeking to gain greater insight into catastrophe risk management and its applications.

Natural Hazards: Earth's Processes as Hazards, Disasters, and Catastrophes

Authors: Edward A. Keller (Author), Duane E. DeVecchio (Author) Year: 2017 Publisher: Routledge

ISBN: 1138090867

Content: Natural Hazards: Earth Processes as Hazards, Disasters and Catastrophes, Fourth Edition, is an introductory-level survey intended for university and college courses that are concerned with earth processes that have direct, and often sudden and violent, impacts on human society. The text principles hydrology, meteorology, integrates of geology, climatology. oceanography, soil science, ecology and solar system astronomy. The book is designed for a course in natural hazards for non-science majors, and a primary goal of the text is to assist instructors in guiding students who may have little background in science to understand physical earth processes as natural hazards and their consequences to society. Natural Hazards uses historical to recent examples of hazards and disasters to explore how and why they happen and what we can do to limit their effects. The text's up-to-date coverage of recent disasters brings a fresh perspective to the material. The Fourth Edition continues our new active learning approach that includes reinforcement of learning objective with a fully updated visual program and pedagogical tools that highlight fundamental concepts of the text. This program will provide an interactive and engaging learning experience for your students. Here's how: Provide a balanced approach to the study of natural hazards: Focus on the basic earth science of hazards as well as roles of human processes and effects on our planet in a broader, more balanced approach to the study of natural hazards. Enhance understanding and comprehension of natural hazards: Newly revised stories and case studies give students a behind the scenes glimpse into how hazards are evaluated from a scientific and human perspective; the stories of real people who survive natural hazards, and the lives and research of professionals who have contributed significantly to the research of hazardous events.ã Strong pedagogical tools reinforce the text's core features: Chapter structure and design organizes the material into three major sections to help students learn, digest, and review learning objectives.

Natech Risk Assessment and Management, 1st Edition, Reducing the Risk of Natural-Hazard Impact on Hazardous Installations

Authors: Elisabeth Krausmann Ana Cruz Ernesto Salzano ISBN: 9780128038079 eBook ISBN: 9780128038796 Imprint: Elsevier **Content**: In March 2011 the whole world watched in shock when a tsunami slammed into a nuclear power plant, causing a nuclear meltdown and raising the spectre of nuclear contamination. Raging fires and explosions at oil refineries in the wake of the massive earthquake that triggered the tsunami also made the global headlines. These events clearly demonstrate the potential for natural hazards to trigger fires, explosions, and toxic or radioactive releases from industrial activities that process, store or transport hazardous materials. These technological "secondary effects" caused by natural hazards are also called "Natech" accidents. Elsevier has recently published the book "Natech risk

technological "secondary effects" caused by natural hazards are also called "Natech" accidents. Elsevier has recently published the book "Natech risk assessment and management - Reducing the risk of natural-hazard impact on hazardous installations" which was co-authored by the European Commission's Joint Research Centre, Kyoto University and Bologna University, with a number of chapter contributions by other institutions. It covers the entire spectrum of issues pertinent to Natech risk assessment and management, and teaches engineers, safety managers and decision makers how to safeguard hazardous installations and pipelines against the impact of natural disasters. After a thorough introduction of the topic, the book discusses various examples of national and international frameworks for major accident prevention and preparedness and provides a detailed view of the implementation of Natech risk management in the EU and OECD. The book also includes a dedicated chapter on natural-hazard characterization and measurement from an engineering perspective, as well as a discussion of selected Natech accidents, including recent ones, and specific lessons learned from each. An important part of the book is dedicated to Natech risk assessment and it provides an analysis of all essential elements of the assessment process, as well as a presentation of available support tools. The final section of the book addresses the reduction of Natech risk, including structural and organizational prevention and mitigation measures, as well as early warning issues and emergency planning. The book is available directly from Elsevier or other major book sellers: http://store.elsevier.com/Natech-Risk-Assessment-and-Management/Elisabeth-Krausmann/isbn-9780128038079/

The Economics of the Global Environment: Catastrophic Risks in Theory and Policy

Authors: Graciela Chichilnisky (Editor), Armon Rezai (Editor) Year: 2017 Publisher: Springer ISBN: 978-3319319414

Content: This is the first book combining research on the Global Environment, Catastrophic Risks and Economic Theory and Policy. Modern economic theory originated in the middle of the twentieth century when industrial expansion coupled with population growth led to a voracious use of natural resources and global environmental concerns. It is uncontested that, for the first time in recorded history, humans dominate the planet, changing the planet's atmosphere, its bodies of water, and the complex web of species that makes life

on earth. This radical change in circumstances led to rethinking of the foundations of human organization and, in particular, the industrial economy and the economic theory behind it. This book brings together new approaches on multiple levels: environmental sustainability requires rethinking in terms of economic theory and policy as well as the considerations of catastrophic risk and extremal events. Leading experts address questions of economic governance, risk management, policy decision making and distribution across time and space.

Climate Hazard Crises in Asian Societies and Environments

Authors: Troy Sternberg Year: 2017 Publisher: Routledge ISBN: 978-92-9257-475-8

Content: Climate hazards are the world's most widespread, deadliest and costliest natural disasters. Knowledge of climate hazard dynamics is critical since the impacts of climate change, population growth, development projects and migration affect both the impact and severity of disasters. Current global events highlight how hazards can lead to significant financial losses, increased mortality rates and political instability. This book examines climate hazards crises in contemporary Asia, identifying how hazards from the Middle East through South and Central Asia and China have the power to reshape our globalised world. In an era of changing climates, knowledge of hazard dynamics is essential to mitigating disasters and strengthening livelihoods and societies across Asia... By integrating human exposure to climate factors and disaster episodes, the book explores the environmental forces that drive disasters and their social implications. Focusing on a range of Asian countries, landscapes and themes, the chapters address several scales (province, national, regional), different hazards (drought, flood, temperature, storms, dust), environments (desert, mountain, coastal) and issues (vulnerability, development, temperate. management, politics) to present a diverse, comprehensive evaluation of climate hazards in Asia. This book offers an understanding of the challenges climate hazards present, their critical nature and the effort needed to mitigate climate hazards in 21st century Asia. Climate Hazard Crises in Asian Societies and Environments is vital reading for those interested and engaged in Asia's development and well-being today And will be of interest to those working in Geography, Development Studies, Environmental Sciences, Sociology and Political Science.

Rebuilding Fukushima

Authors: Mitsuo Yamakawa (Editor), Daisaku Yamamoto (Editor)
Year: 2017
Publisher: Routledge
ISBN: 978-1138193796
Content: Five years after the one of the worst nuclear accidents in history, Fukushima now only occasionally headlines national and international media.

However, the disaster is far from over, as evidenced by a hundred thousand people from Fukushima still in the state of evacuation, rising levels of radiation in streams and rivers, and failing attempts to control the leakage of radioactive materials at the Fukushima Daiichi Nuclear Power Plant. Despite these dismal conditions, efforts to recover and rebuild livelihoods in the afflicted regions of Fukushima did start immediately after the outset of the accident. Rebuilding Fukushima gives an account of how citizens, local governments, and businesses responded to and coped with the crisis of Fukushima. It addresses principles to guide reconstruction and international policy environments in which the current disaster is situated. It explores how reconstruction is articulated and experienced at different spatial scales, ranging from individuals to communities and municipalities, and details recovery efforts, achievements, and challenges in the realms of public transportation, agriculture and food production, manufacturing industries, retail sectors, and renewable-energy industries. This book also critically investigates the nature of the current reconstruction policy schemes, and seeks to articulate what may be required in order to achieve more sustainable and equitable (re)development in afflicted regions and other nuclear host regions. Drawing on extensive fieldwork and local surveys, this volume is one of the first books in English that captures the knowledge and insights of native Japanese social scientists who dealt with the complexities of nuclear disaster on a day-today basis. It will be of great interest to students and scholars of disastermanagement studies and nuclear policy.

Climate Change and Natural Disasters: Transforming Economies and Policies for a Sustainable Future

Authors: Vinod Thomas (Author) Year: 2017 Publisher: Transaction Publishers ISBN: 978-1412864404

Content: The start of the new millennium will be remembered for deadly climaterelated disasters—the great floods in Thailand in 2011, Super Storm Sandy in the United States in 2012, and Typhoon Haiyan in the Philippines in 2013, to name a few. In 2014, 17.5 million people were displaced by climate-related disasters, ten times more than the 1.7 million displaced by geophysical hazards. What is causing the increase in natural disasters and what effect does it have on the economy? Climate Change and Natural Disasters sends three messages: human-made factors exert a growing influence on climate-related disasters; because of the link to anthropogenic factors, there is a pressing need for climate mitigation; and prevention, including climate adaptation, ought not to be viewed as a cost to economic growth but as an investment. Ultimately, attention to climate-related disasters, arguably the most tangible manifestation of global warming, may help mobilize broader climate action. It can also be instrumental in transitioning to a path of low-carbon, green growth, improving disaster resilience, improving natural resource use, and caring for the urban environment. Vinod Thomas proposes that economic growth will become sustainable only if governments, political actors, and local communities combine natural disaster prevention and controlling climate change into national growth strategies. When considering all types of capital, particularly human capital, climate action can drive economic growth, rather than hinder it. Already listed new books in previous newsletters with publication date between 2015 and 2016:

Flood Risk Management and Response

Authors: D. Proverbs (Author, Editor), C. A. Brebbia (Editor) Year: 2016 Publisher: WIT Press / Computational Mechanics ISBN: 978-1784662417

Natural Disaster Risk Management: Geosciences and Social Responsibility

Authors: Ulrich Ranke (Author) Year: 2016 Publisher: Springer ISBN: 978-1784662417

Reducing Disaster Risk by Managing Urban Land Use: Guidance Notes for Planners

Authors: Year: 2016 Publisher: Asian Development Bank ISBN: 978-92-9257-475-8

Huge levels of aid are spent on reconstructing housing after disasters. Have these houses Still Standing?: Looking Back at Reconstruction and Disaster Risk Reduction in Housing

Authors: Theo Schilderman (Editor), Eleanor Parker (Editor) Year: 2016 Publisher: Practical Action ISBN: 185339839X

Ecosystem-Based Disaster Risk Reduction and Adaptation in Practice

Authors: Fabrice G. Renaud (Editor), Karen Sudmeier-Rieux (Editor), Marisol Estrella (Editor), Udo Nehren (Editor) Year: 2016 Publisher: Springer ISBN: 3319436317

Disasters: Learning the Lessons for a Safer World

Authors: David Eves Year: 2016 Publisher: Routledge ISBN: 1138144231

Identifying Emerging Issues in Disaster Risk Reduction, Migration, Climate Change and Sustainable Development: Shaping Debates and Policies

Authors: Karen Sudmeier-Rieux (Editor), Manuela Fernández (Editor), Ivanna Penna (Editor), Michel Jaboyedoff (Editor), JC Gaillard (Editor) Year: 2016 Publisher: Springer ISBN: 3319338781

Urban Resilience: A Transformative Approach

Authors: Yoshiki Yamagata (Editor), Hiroshi Maruyama (Editor) Year: 2016 Publisher: Springer ISBN: 3319398105

Climate Change Adaptation, Resilience and Hazards

Authors: Walter Leal Filho (Editor), Haruna Musa (Editor), Gina Cavan (Editor), Paul O'Hare (Editor), Julia Seixas (Editor)
Year: 2016
Publisher: Springer
ISBN: 3319398792

Disaster Risk Reduction and the Global System: Ruminations on a Way Forward

Authors: Michael Gordy (Author) Year: 2016 Publisher: Springer ISBN: 3319416669

Natural Disasters in China

Authors: Peijun Shi (Editor) Year: 2016 Publisher: Springer ISBN: 3662502682

Disaster Risk Reduction: Cases from Urban Africa

Authors: Mark Pelling and Ben Wisner Year: 2016 Publisher: Routledge ISBN: 1138002054

Mathematics Geostatistical and Geospatial Approaches for the Characterization of Natural Resources in the Environment: Challenges, Processes and Strategies

Authors: N. Janardhana Raju (Editor) Year: 2016 Publisher: Springer ISBN: 3319186620

National Flood Insurance: Management and Accountability in the Wake of Superstorm Sandy

Authors: Brenda Murphy (Editor) Year: 2016 Publisher: Nova Science Pub Inc ISBN: 1634843797 Content: -

Estimating Fatality Rates for Earthquake Loss Models

Authors: Emily So (Author) Year: 2016 Publisher: Springer ISBN: 3319268376

Resilience by Design

Authors: Alexandra Jayeun Lee (Author) Year: 2016 Publisher: Springer ISBN: 3319306391

Disaster Resilience After Hurricane Sandy: Enhancement Efforts, Use of Funds, and National Mitigation Framework

Authors: Johnathan Carr (Editor) Year: 2016 Publisher: Nova Science Pub Inc ISBN: 1634846451 Content: -

Implementing Climate Change Adaptation in Cities and Communities: Integrating Strategies and Educational Approaches

Authors: Walter Leal Filho (Editor), Kathryn Adamson (Editor), Rachel Dunk (Editor), Ulisses M. Azeiteiro (Editor), Sam Illingworth (Editor), Fatima Alves (Editor) Year: 2016 Publisher: Springer

ISBN: 3319285890

Extreme Weather, Health, and Communities: Interdisciplinary Engagement Strategies

Authors: Sheila Lakshmi Steinberg (Editor), William Sprigg (Editor) Year: 2016 Publisher: Springer ISBN: 3319306243

Disaster Resilience of Education Systems: Experiences from Japan

Authors: Koichi Shiwaku (Editor), Aiko Sakurai (Editor), Rajib Shaw (Editor) Year: 2016 Publisher: Springer ISBN: 4431559809

The Handbook of Disaster and Emergency Policies and Institutions

Authors: John Handmer (Author), Stephen Dovers (Author) Year: 2016 Publisher: Routledge ISBN: 113897188X

Managing Extreme Climate Change Risks through Insurance

Authors: W. J. Wouter Botzen (Editor) Year: 2016 Publisher: Cambridge University Press ISBN: 1316600882

Designing Water Disaster Management Policies

Authors: Chennat Gopalakrishnan (Editor) Year: 2015 Publisher: Routledge ISBN: 978-1-13-893079-7

Global Volcanic Hazards and Risk

Authors: Susan Loughlin et al. (Editors) Year: 2015 Publisher: Cambridge University Press ISBN: 1107111757

Hydrometeorological Disasters and Climate Change

Authors: Amarnath Giriraj et al. (Editors) Year: 2015 Publisher: CRC Press ISBN: 0415621321

Uncertainty and Catastrophe Management: The 2011 Great East Japan Earthquake and Beyond

Authors: Akira Ishikawa (Author, Editor), Atsushi Tsujimoto (Editor) Year: 2015 Publisher: World Scientific Publishing Co ISBN: 9814644951

Strategic Disaster Risk Management in Asia

Authors: Huong Ha et al. (Editors) Year: 2015 Publisher: Springer ISBN: 8132223721

Disaster Vulnerability, Hazards and Resilience: Perspectives from Florida

Authors: Fernando I. Rivera (Author), Naim Kapucu (Author) Year: 2015 Publisher: Springer ISBN: 331916452X

Rethinking Disaster Recovery: A Hurricane Katrina Retrospective

Authors: Jeannie Haubert et al. (Editors) Year: 2015 Publisher: Lexington Books ISBN: 1498501206

Natural Disaster Management in the Asia-Pacific: Policy and Governance

Authors: Caroline Brassard et al. (Editors) Year: 2015 Publisher: Springer ISBN: 4431551565

National Economic Impact Analysis of Terrorist Attacks and Natural Disasters

Authors: Harry W. Richardson et al. (Editors) Year: 2015 Publisher: Edward Elgar Pub ISBN: 1783475854

Tohoku Recovery: Challenges, Potentials and Future

Authors: Rajib Shaw (Editor) Year: 2015 Publisher: Springer ISBN: 4431551352

Risk Governance: The Articulation of Hazard, Politics and Ecology

Authors: Urbano Fra.Paleo (Editor) Year: 2015 Publisher: Springer ISBN: 9789401793278

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- Samaddar, S., Okada, N., Choi, J., & Tatano, H. (2017). What constitutes successful participatory disaster risk management? Insights from postearthquake reconstruction work in rural Gujarat, India. *Natural Hazards*, *85*(1), 111-138.
- Chen, Z., Rose, A. Z., Prager, F., & Chatterjee, S. (2017). Economic consequences of aviation system disruptions: A reduced-form computable general equilibrium analysis. *Transportation Research Part A: Policy and Practice*, *95*, 207-226.

¹ To spread the information of published articles in the last year from IDRiM members to other IDRiM members we now include selected and recent (not older than 1-2 years) publications of IDRiM members (see previous IDRiM News section for more details).

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- Sun, Y., Nakai, F., Yamori, K., & Hatayama, M. (2017). Tsunami evacuation behavior of coastal residents in Kochi Prefecture during the 2014 Iyonada Earthquake. *Natural Hazards*, *85*(1), 283-299.
- Schinko, T. & Mechler (2017), R. Applying recent insights from climate risk management to operationalize the loss and damage mechanism. Ecol. *Econ.* 136, 296–298.
- Chakraborty, A., Ibrahim, A., & Cruz, A. M. (2018). A study of accident investigation methodologies applied to the Natech events during the 2011 great east Japan earthquake. *Journal of Loss Prevention in the Process Industries*.
- Kajitani, Y., & Tatano, H. (2017). Applicability of a spatial computable general equilibrium model to assess the short-term economic impact of natural disasters. *Economic Systems Research*, 1-24.
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- Sadeghi, M., Ghafory-Ashtiany, M., & Pakdel-Lahiji, N. (2017). Multiobjective optimization approach to define risk layer for seismic mitigation. *Geomatics, Natural Hazards and Risk, 8*(2), 257-270.

8. Miscellaneous

New Graduate Degree Program:

We are pleased to announce a new blended Master of Science (MSc) Disaster Management: Resilience, Response and Relief course at the Humanitarian and Conflict Response Institute (HCRI) at The University of Manchester. Offered jointly with The Hong Kong Polytechnic University, this programme is designed for participants who intend to develop theoretical and practical knowledge and skills in the disaster risk management and humanitarian contexts. Graduates will be equipped to work and become leaders in the fields of disaster management, humanitarianism, and other related fields. This programme will further enhance students' personal and professional development and provide important collaborative links globally. The application deadline for the fall semester is 29 April 2016. For more information please visit HCRI's website (http://www.hcri.manchester.ac.uk/study-with-us/postgraduate-taught/).

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: <u>http://www.tiems.info/</u>
- Natural Hazards Group Newsletters: Website: <u>http://www.agu.org/focus_group/NH/about/newsletters/</u>
- Disaster Research: DISASTER RESEARCH (DR) is a moderated newsletter for creators and users of information about hazards and disasters.
 Website: <u>http://www.colorado.edu/hazards/dr/currentdr.html</u>
- Emergency Manager's Weekly Report: Website: http://www.6pinternational.com/news.php?category=Emergency%20Managers%20 Weekly%20Report&
- KatNet-Newsletter: (mostly in German language) Website: <u>http://www.katastrophennetz.de/</u>
- 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-l.iisd.org/about-the-climate-l-mailing-list/ General Information: <u>http://www.iisd.ca/</u>
- Society of Risk Analysis Newsletter: Website: <u>http://www.sra.org/newsletter.php</u>
- ULC Institute for Risk and Disaster Reduction Newsletter: Website: <u>http://www.ucl.ac.uk/rdr/irdr/newsletter/</u>

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