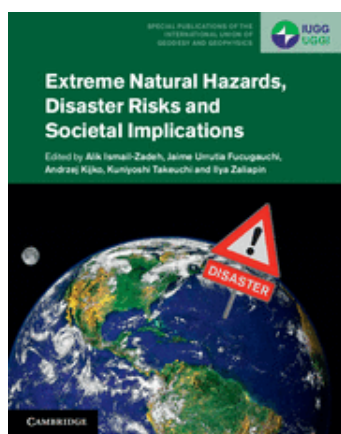


FOR IMMEDIATE RELEASE

New book provides an insight on how to reduce the growing impacts of natural hazards on society



Extreme Natural Hazards, Disaster Risks and Societal Implications

Edited by Alik Ismail-Zadeh, Jaime Urrutia Fucugauchi, Andrzej Kijko, Kuniyoshi Takeuchi and Ilya Zaliapin

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Great advances in understanding planet Earth and its environment allow its geophysical processes and phenomena including their extreme manifestations, which lead to floods, hurricanes, earthquakes, tsunamis, volcanoes, landslides, severe space weather, wildfires and other natural hazard events, to be studied. There is a deep belief in the community of natural scientists that with progress in science and the scientific ability to predict extreme events the problem of disaster risk reduction will be resolved. That is perhaps true to some extent.

Extreme events (e.g. the 2004 Indian Ocean and 2011 Great East Japan earthquakes and tsunamis, the 2005 Hurricane Katrina and 2012 Hurricane Sandy, the 2010 Haiti earthquake, the 2013 Typhoon Haiyan) showed that despite the significant scientific knowledge and predictive capacity that has been accumulated, we could not prevent and even mitigate the related disasters. Social scientists explain that both the physical and the social vulnerability of society to extreme events and significant exposure in the regions prone to natural hazards play a crucial role in the disaster occurrences.

The theory of disaster risk developed by natural and social scientists becomes useful, if and only if it is properly implemented. Important players, who could help scientists to implement and to communicate to the public the scientific knowledge on disaster risk, are engineers, lawyers, disaster management authorities, policy makers, representatives of the (re)insurance industry, international and intergovernmental organizations, media, and other stakeholders dealing with natural hazards and disaster risk reduction. An advanced effective link between all stakeholders should be established. The book, which is published by Cambridge University Press as a part of Special Publications of the International Union of Geodesy and Geophysics, promotes this idea.

Book editor, Alik Ismail-Zadeh said: “*Extreme Natural Hazards, Disaster Risks and Societal Implications* is intended to bridge two major themes, natural hazards and disaster risks, and presents the ways in which scientific knowledge could help to reduce risks of disasters for the benefit of society. The book summarizes the major topics discussed at the scientific meetings held in the framework of the trans-disciplinary, international project “Extreme Natural Events and Societal Implications - ENHANS” (<http://www.enhans.org>) co-sponsored by the International Council for Science (ICSU), several international and intergovernmental organizations”.

Now, this book presents a unique, interdisciplinary approach to disaster risk research, combining cutting-edge natural science and social science methodologies. Bringing together leading scientists, policy makers, and practitioners from around the world, the book presents the risks of global hazards and provides real world hazard case studies from Latin America, the Caribbean, Africa, the Middle East, Asia and the Pacific region. The authors provide insight into topics such as extreme natural hazards, the vulnerability of society, disaster risk reduction policy, relations between disaster policy and climate change, adaptation to hazards, and (re)insurance approaches to extreme events.

This is a key resource for academic researchers and graduate students in a wide range of disciplines linked to hazard and risk studies, including seismology, volcanology, hydrology, meteorology, geomorphology, geomagnetism, oceanography, remote sensing, engineering, and geography. It is also an important reference for professionals and policy makers working in disaster prevention and mitigation.

About the editors

Alik Ismail-Zadeh is Senior Scientist at the Karlsruhe Institute of Technology, Karlsruhe, Germany and Chief Scientist at the Russian Academy of Sciences, Moscow, Russia. His scientific interests cover studies of dynamics of the lithosphere and upper mantle and their surface manifestations including seismicity, seismic hazard, and risk. He has served as President of the Natural Hazards Focus Group of the American Geophysical Union (AGU), President of the IUGG Union Commission of Geophysical Risk and Sustainability, and the leader of the ENHANS project.

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Andrzej Kijko is the Director of the University of Pretoria Natural Hazards Centre, Pretoria, South Africa, and also a Professor of the University of Pretoria. As an internationally acclaimed researcher, he has been active in engineering geophysics and seismology for about 40 years.

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About International Union of Geodesy and Geophysics

IUGG is a non-governmental, international, scientific organization dedicated to advancing, promoting, and communicating knowledge of the Earth system, its space environment, and the dynamical processes causing change. IUGG is comprised of eight International Associations dealing with cryospheric sciences, geodesy, geomagnetism and aeronomy, hydrology, meteorology and atmospheric sciences, oceanography, seismology, volcanology, physics and chemistry of the Earth's interior, solar-terrestrial relations, and analogous problems associated with the Moon and other planets. IUGG encourages the application of this knowledge to societal needs, such as mineral resources, mitigation of natural hazards, climate change, and environmental preservation.

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