

Part I - The Enablers: Mechanisms that facilitate GSOs' role in disaster and climate risk management



Sonia Talwar, Ph.D.

Director – Pacific Division, Geological Survey of Canada

Dr. Sonia Talwar is the Director of the Geological Survey of Canada (GSC), Pacific Region, where she leads a dedicated team of researchers and scientists interested in seismology, marine geology, and risk assessment. Sonia leads the GSC's research programs in natural hazards & risk and climate change geoscience and is the GSC's national lead for Indigenous Relations. As a researcher, Sonia has advanced science and technology processes to support decision-making and policy analysis in natural hazard risk, climate change and groundwater management for Natural Resources Canada since 1998. She managed the design of innovation programming for Western Economic Diversification Canada, now PacifiCan. She has also worked as a Director with NRCan's Indigenous Partnerships Office-West, a team dedicated to relationship building with BC Indigenous communities to advance their resource-related economic development priorities. She is Vice-Chair for the Governing Board of the Global Earthquake Model Foundation. Sonia has a PhD degree in Geography from the University of British Columbia and prior degrees from the University of Edinburgh and McGill University. Sonia enjoys hiking and skiing in the mountains of BC with her family and friends.



Paola Albrito, M.A.

Director, United Nations Office for Disaster Risk Reduction

Ms. Paola Albrito has served in the United Nations in various capacities and duty stations since 1999 and is currently the Director of the United Nations Office for Disaster Risk Reduction.

She holds a Master's Degree in International Relations and Political Science from the University of Turin, Italy and is a member of the International Institute of Strategic Studies (London, United Kingdom).

She has widely published internationally on disaster risk reduction and governance issues, and is an Editorial Advisor at the Crisis Response Journal (London, United Kingdom).

She speaks Italian, French, English and some Russian.



Sahar Safaie, M.Eng.
Disaster and Climate Resilience Specialist, Founder

Sahar Safaie founded Sage On Earth Consulting Ltd. in 2017 based in Vancouver, Canada (SageOnEarth.ca). She has more than 18 years of experience in many aspects of risk assessment and risk management policy at Public and Private sector in Canada and internationally. She has a strong technical background and years of exposure to policy and governance challenges of disaster and climate risk management at various levels which she combines her skills in strategic analysis of complex systems to develop consensus-based solutions that are aligned with the desired goals.

Sahar was the technical lead and designer of the Resilience Pathways Report (2022) and co-author of the Summary for Policymakers which has been influencing the direction the Provincial Government and many local governments are taking in their disaster and climate risk management (DRRPathways.ca).

Among the highlights of her work are the coordinating the UN GAR15 global multi-hazard risk assessment and leading three guidelines for United Nations Office for Disaster Risk Reduction (UNDRR): Promoting synergy and alignment between climate change adaptation and disaster reduction in the context of National Adaptation Plans (2021), Words into Action Guideline on National Disaster Risk Reduction Strategy (2019), Words into Action Guideline on National Disaster Risk Assessment (2017).

Sahar has a Master's degree in Earthquake Engineering from the University of British Columbia, Canada and a certificate on Public Policy Analysis from the London School of Economics.



John F. Schneider, Ph.D.

Secretary General, GEM (Global Earthquake Model) Foundation

John joined GEM as Secretary General in 2016, serving previously on the Governing Board representing Australia (2010-2015) and as Chair from 2013-2015. GEM is a global public-private partnership and non-profit foundation based in Pavia, Italy. GEM develops and disseminates open data, models and tools to assess earthquake risk and promote earthquake resilience worldwide. GEM's products are used widely by academics, the financial/insurance industry, engineers and governments for earthquake hazard and risk modelling applications.

John received a PhD in geophysics from the University of Wisconsin (USA) and conducted post-doctoral research at the Carnegie Institution in Washington, DC, specializing in seismotectonics of the Andean subduction zones beneath Colombia and Peru. He then shifted to private industry to work on earthquake hazard and risk assessment for nuclear power safety and catastrophe risk modelling for insurance/financial risk management. John moved to Australia in 2000 to lead the development of a multi-hazard risk assessment capability for the Geoscience Australia, which led to a program on urban risk assessment in Australia, and later to capacity building programs on natural hazard risk in southeast Asia and the Pacific. He moved to Pavia in 2016 to join GEM.



Malaika Ulmi,

Public Safety Geoscience Program Manager, Geological Survey of Canada

Malaika Ulmi is a geoscientist with the Geological Survey of Canada (GSC) who has worked for twenty years on the science-policy interface through natural hazard research and its applications. She started her career at the GSC as part of an international development project working with the national geoscience agencies of Argentina, Bolivia, Canada, Chile, Colombia, Ecuador, Peru and Venezuela to better connect the geological survey organizations with civil defense and land use planning. She has seen geoscience-informed risk reduction in action through the Geological Survey of Canada's Public Safety Geoscience Program as part of a project working to adapt FEMA's Hazus tool for Canada, applying earthquake risk assessments at the municipal scale, communicating risk to practitioners, scaling up earthquake risk assessment to the national level, and now as the program manager connecting the program with stakeholders. Malaika lives on northern Vancouver Island and enjoys spending time on mountain trails with her family.



Matthew Godsoe, DSocSci

Director of the Resilience and Economic Integration Division at Public Safety Canada

Dr. Matthew Godsoe is the Director of the Resilience and Economics Integration Division at Public Safety Canada. He has held a number of scientific, policy, and executive positions within Public Safety Canada and Defence Research and Development Canada. His research interests are focused on scalable policy interventions that increase whole-of-society disaster resilience. Dr. Godsoe is former technical rescue instructor, Search and Rescue volunteer and wilderness guide who spends as much time with his family outdoors as possible.



Michael M. Grimm

Mr. Michael (Mike) Grimm serves as the Assistant Administrator for the Risk Management Directorate within the Federal Emergency Management Agency

(FEMA). With over 25 years at FEMA, Mr. Grimm has worked to improve coordination, collaboration, and transparency across various levels of government to align national mitigation policies on reducing risk, and to promote more disaster-resilient communities.

Under Mr. Grimm's direction, the Risk Management Directorate delivers quality risk data, modeling, and programs that increase the public's awareness of risk across the range of natural hazards. These programs include the Risk Mapping, Analysis, and Planning Program (encompassing the Flood Hazard Mapping Program under the National Flood Insurance Program), Building Sciences Program, National Earthquake Hazard Reduction Program, National Windstorm Impact Reduction Program, and National Dam Safety Program. He also directs the National Hazard Mitigation Planning Program and FEMA's actuarial and catastrophic modeling responsibilities.

Prior to this role, Mr. Grimm served as FEMA's Assistant Administrator for FEMA's Mitigation Directorate from 2014 to 2018. He also led the Individual Assistance Division from 2011 to 2014. Before joining FEMA in 1997, Mr. Grimm worked in local and state level emergency management programs, as well as with the U.S. Geological Survey's National Research Program.



Richard Robertson, Ph.D.

Professor of Geology, The UWI Seismic Research Centre

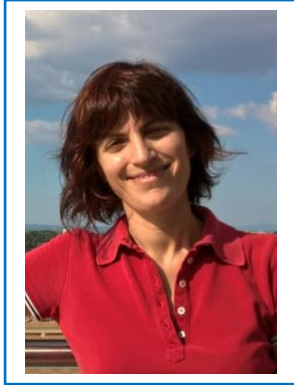
Prof. Richard Robertson is a Geologist and Volcanologist who has worked in the Caribbean region for over 30 years. He has postgraduate degrees in Geology & Volcanology from UWI, Jamaica, and the University of Leeds, UK. He joined the staff at The UWI Seismic Research Centre (UWI-SRC), Trinidad in 1993 after serving for six years as Head of the local volcano-monitoring unit in St. Vincent. Prof. Robertson was Head of the Seismic Research Unit during the period 2004–2008 and Director of the renamed Seismic Research Centre from 2008–2011 and 2013–2019. At UWI-SRC he has been involved with the establishment of volcano monitoring networks; ongoing public education and outreach campaigns in the Eastern Caribbean; the eruption of the Soufriere Hills Volcano on Montserrat and the 2020–21 eruption of La Soufriere Volcano on St. Vincent. He has a keen interest in the dissemination of scientific information to vulnerable island communities and in building capacity at the community level to cope with hazards.



John Rees BSc. Ph.D. CSci

Natural Hazard, Disaster and Resilience Specialist

John is Chief Scientist at the British Geological Survey (BGS) with interests primarily in multi-hazards and resilience. Previously he worked for UK Research and Innovation (UKRI) where he was responsible for building trans-disciplinary research and partnerships relating to the Resilience to environmental shocks and hazards portfolio of the UK Global Challenges Research Fund and before this was Natural Hazards Theme Leader at the Natural Environment Research Council (NERC). In the latter role he led the UN Major Group for Science and Technology leading up to the Sendai Framework. Prior to this he co-initiated the UK Disaster Research Group (UKDRG) as well as the UK Alliance for Disaster Research (UKADR). He is a visiting Professor at Leicester University.



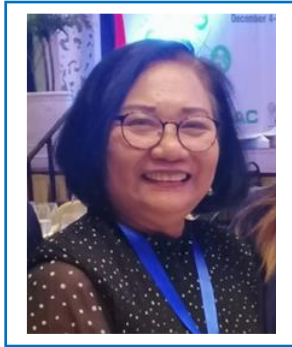
Daniela Di Bucci, Ph.D., Geologist
Geohazards Specialist

Daniela Di Bucci is a Structural Geologist, PhD in Earth Sciences. She also holds a Master's degree in Behavioural Sciences and Administrations. She works at the International Relations and Activities Unit of the Italian Civil Protection Department (Presidency of the Council of Ministers). She is an expert on geo-hazards and on the relationship between the scientific community and policy makers in the field of Disaster Risk Reduction (DRR) and civil protection.

She provides technical and scientific contributions: in the definition of agreements between Civil Protection Department and universities or research institutes; in supporting the Major Risks Commission; in the interaction with Ministries and Public Administrations on issues related to DRR; and, more generally, in the definition of strategies aimed at understanding and reducing disaster risks at national and international level.

In the latter context, in particular, she participates in collaborations with the Directorates General of the European Commission dealing with civil protection issues (DG-ECHO, JRC); in the Governing Board of the GEM Foundation; in European scientific projects (Coordination, Advisory Board, Operational Unit, etc.); in activities promoted by UN-DRR.

She is the Author of more than 110 peer-reviewed scientific publications and of more than 180 participations in conferences.



Liza Socorro J. Manzano, M.Sc
Chief Geologist

Liza graduated BS Geology in University of the Philippines Diliman in 1982, and earned her Master's degree in Environmental Management in Liceo de Cagayan University in 1999. She currently serves as the Chief Geologist of the Department of Environment and Natural Resources - Mines and Geosciences Bureau (DENR-MGB) Central Office, spearheading the geosciences programs of the office and its 15 regional offices. She also acts as the country's alternate representative of the MGB Director to international linkages, such as the Coordinating Countries for Geoscience Programmes in East Asia and Southeast Asia (CCOP) and the International Research Center for Karst / UNESCO (IRCK).

In her 40 years of public service, she has specialized in quaternary geology, environmental management, geohazards, karst geology, and social development and management of mining communities. Her extensive exposure to the grassroots and solidified the importance of good governance, especially concerning mining and geohazards. This is complemented by her work with various government agencies from the national and regional to the local and smallest "barangay level" To these, she wishes to train and develop the next generations of geologists to embody the perfect harmony of technical scientific endeavor and public service for the common good.

Part II - Science and Technology: Advancing methods, tools, and capabilities in hazard and risk assessment



William L. Cunningham

Director, Office of International Programs, U.S. Geological Survey

Bill Cunningham is Director of the USGS Office of International Programs. In this role, he serves as the principal advisor to the Director, other senior leaders, and the Department of the Interior regarding a broad spectrum of international scientific cooperation and assistance in geologic, hydrologic, natural hazards, biological, and geographic research and scientific investigations.

Previously, Bill was Director of the Earth System Processes Division of the Water Mission Area from 2017 to 2020. He oversaw 120 USGS scientists actively engaged in hydrologic process studies, research, and development across the Nation. Bill served in the USGS Office of Groundwater beginning in 2000, and as Office Chief from 2012 to 2017, providing leadership across the USGS in the development of techniques for the collection, analysis, and interpretation of groundwater data and information. The Office of Groundwater developed tools and methods for the USGS operational program, transferring technology to USGS groundwater data and investigative activities throughout the Nation, providing a system of quality controls to assure the technical excellence of groundwater field programs, and providing national direction and program coordination for USGS groundwater science.



Philip Hill, Ph.D.

Emeritus Geoscientist

Dr. Philip Hill is a graduate of Oxford and Dalhousie Universities and has more than 40 years of experience in marine geological and geohazard research in the Atlantic, Pacific and Arctic Oceans of Canada. Phil spent nine years at the Université du Québec à Rimouski as a Professor of Oceanography before joining the Geological Survey of Canada as a Research Scientist, where he managed several large research programs related to ocean management, climate change and marine geohazards. From 2014 to 2019, he was Director of the Geological Survey of Canada Pacific Division, responsible for offices in Sidney and Vancouver, BC, and leading multimillion dollar budget proposals on Geoscience for Marine Spatial Planning and Earthquake Risk Assessment. He worked closely with Daniel Lebel in establishing the World Community of Geological Surveys as an influential organization supporting executives and senior managers of Geological Survey Organizations across the globe. Phil retired in 2021 but continues to be active in WCOGS and in marine geoscience research.



Héctor Pérez, Ph.D.
Seismic Risk Engineer

Héctor Pérez, Ph.D., is a Seismic Risk Engineer at the Colombian Geological Survey and an Assistant Professor of Structural Engineering at the University Escuela Colombiana de Ingeniería in Bogotá, Colombia. He obtained his bachelor's in civil engineering (2006) and a structural specialist degree (2012) from the University Escuela Colombiana de Ingeniería. He received his master's (2015) and Ph.D. (2019) degrees in Earthquake Engineering from the School for Advanced Studies IUSS Pavia, Italy.



David Wald, Ph.D.
Supervisory Research Geophysicist

David Wald a seismologist with USGS at the National Earthquake Information Center. He completed his Ph.D. at Caltech in 1993. Wald leads development and operations of real-time information systems including ShakeMap, Did You Feel it?, PAGER, ShakeCast, and Ground Failure. David is currently the Past Editor-in-Chief of the EERI's journal Earthquake Spectra and is an Adjunct Professor in the Geophysics at the Colorado School of Mines. He was an IRIS/SSA Distinguished Lecturer and EERI's Distinguished Lecture. He also served on the Board of Directors for both SSA and EERI and was the 2009 recipient of SSA's Frank Press Public Service Award. In 2021, Wald was awarded the EERI-SSA Joyner Lectureship, an AGU Fellow, and received the USGS Shoemaker Lifetime Achievement Award in Communications, an award granted annually to a scientist who creates excitement and enthusiasm for science among non-scientists by using effective communication skills.



Mark Edwards, M.Eng.
Director and Structural Engineer

Mark Edwards is the Director of the Vulnerability, Resilience and Mitigation Section at Geoscience Australia. He leads a multi-disciplinary team developing engineering, economic and social vulnerability models in the Community Safety Branch. He is an engineer with 14 years of industry experience as a professional engineer followed by 26 years of research with a scope that has widened from earthquake vulnerability to multi-hazard risk. He participates in the development of Australian building design standards for a range of natural hazards and is a member of the Global Earthquake Foundation Governing Board. He leads the collaborative development of an evidence base to inform decision makers on strategies for mitigating natural hazard risk in the built environment, including that posed by Australian earthquakes and severe wind.



Chesley Williams
Senior Director, Product Management

Chesley manages the commercial development of the RMS earthquake and tsunami models for the Asia-Pacific region. Chesley joined the Model Development Group at RMS in 1995, with expertise in developing seismic source models.

Through her tenure at RMS, Chesley was a model developer for key products including the 2018 RMS Japan Earthquake and Tsunami HD model and earthquake models for Europe, Asia, and Latin America. Chesley has recently shifted roles from model development to product management to use her years of experience at RMS to facilitate strategic product development, product marketing and product management.

Chesley holds a master's degree in geophysics from Stanford University, where she researched ground deformation associated with the 1989 Loma Prieta earthquake.



Sue Loughlin, BSc, PhD.
Geologist/Volcanologist

Sue Loughlin has been Head of Volcanology at the British Geological Survey since 2008. She recruited the team to pursue a range of applied research topics from understanding processes to reducing multi-hazard risk, collaborating with diverse partners and at-risk communities.

After gaining a PhD on the Eyjafjallajökull volcano in Iceland from Durham University, Sue began her professional life with BGS in 1995 as a geological mapper, specializing in volcanic and magmatic rocks in the UK, Iceland and North Africa. In 1997 she began working at the Montserrat Volcano Observatory, assessing hazards and impacts of the long-lived eruption of the Soufrière Hills Volcano. She became Deputy Chief Scientist at MVO between 1997–99 and then Director between 2004–6 advising the local population, Government of Montserrat and UK Government.

During the 2010 eruption of the Eyjafjallajökull volcano and the 2011 eruption of Grinston volcano she was a member of the UK Scientific Advisory Group in Emergencies. She has since led contributions to the UK National Security Risk Assessment for volcanic risks and contributed papers to the UN Global Assessment Reports. Sue co-led the Global Volcano Model network 2012–2015 and her team contribute to natural hazard partnerships in the UK and Europe.



Prof. Masyhur Irsyam, MSE., Ph.D.
Chairman, Team for Revision of Seismic Hazard Maps of Indonesia 2010 and 2017

Masyhur Irsyam is a lecturer at the Civil Engineering Department of Bandung Institute of Technology (ITB), Bandung, Indonesia and his speciality is in the field of Earthquake Geotechnical Engineering.

Since 2015 he became Coordinator of the National Center for Earthquake Studies of Indonesia (PuSGeN) until 2019, and from 2011 to 2019 he was President of the Indonesian Society for Geotechnical Engineering (HATTI). He was appointed as Chairman of the Team for Revision of Seismic Hazard Maps of Indonesia 2010 and 2017, Coordinator for Indonesian Codes related to Geotechnical Engineering SNI 8460-2017 and Indonesian Code for Earthquake Resistance Design (Sub Structure Part) SNI 1726-2019.

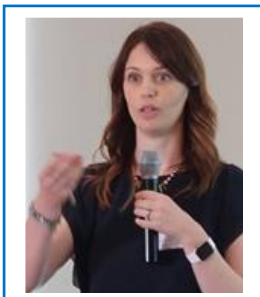
Currently he is an active member of the Indonesian Academy of Sciences (AIPI), Advisory Boards of Building Construction for DKI Jakarta, Committee for Bridge Safety (KKJTJ) of the Ministry of Public Works, and Technical Committee TC's and Asian Technical Committee ATC's of ISSMGE (International Society for Soil Mechanics and Geotechnical Engineering).

Masyhur has a PhD and master's degree in civil engineering from the University of Michigan USA and prior degrees from Bandung Institute of Technology, Indonesia.



Yoshihiro Ishizuka, Ph.D.
Volcanologist

Yoshihiro Ishizuka is a volcanologist working at the Geological Survey of Japan, AIST. His research interests include the developmental history of active volcanoes and magma evolution, including Mt. Fuji. He is involved in volcanic geological mapping, taking into account the analysis of compositional and chronological data of volcanic rocks, and makes recommendations to the government for the creation of hazard maps.



Helen Crowley, Ph.D.
Seismic Risk Consultant

Helen graduated with a M.Eng. in Civil Engineering from Imperial College London in 2000. After working for a year in London as a graduate structural engineer she moved to Italy to complete M.Sc. and Ph.D. degrees in Earthquake Engineering at the University of Pavia (ROSE School). Helen worked as a seismic risk researcher at the EUCENTRE in Pavia from 2006 to 2009, after which she moved to the Global Earthquake Model (GEM) Foundation to coordinate the seismic risk activities at a global scale. She also held the role of Deputy Secretary General of the GEM Foundation from 2012 to 2014.

Since 2014 she has been working as an independent consultant, working in both the public and private sectors. She continues to collaborate with the EUCENTRE on a number of European projects related to seismic risk and loss modelling, and she recently coordinated the development of the first openly available European seismic risk model (ESRM20). Her awards include the 2009 European Geosciences Union Plinius Medal and the EERI's 2012 Shah Family Innovation Prize. She has authored over 180 publications, has been a peer-reviewer and/or editorial board member of over 20 international scientific journals, and is currently Editor of Earthquake Spectra.

Part III – The Risk Management Goal: How GSOs can support awareness and advocacy, enhancing building codes, early warning systems, and resilience planning



Gill Jolly, Ph.D.
Natural Hazards & Risks Research Leader

Gill is a volcanologist from the UK and after researching magma physics for her PhD, she started work at the British Geological Survey. After a few years exploring for gold and base metals in the UK, she was involved in the eruption of Soufriere Hills volcano, Montserrat from 1995 to 2005. In 2006 she moved to NZ where she led the Volcanology team at GNS Science through New Zealand and SW Pacific eruptions. Between 2014 and 2018, she was the Director of the Natural Hazards Division and led the division through the response to the 2016 M7.8 Kaikōura Earthquake. She is currently the Leader of the Natural Hazards and Risks Science Theme. She is responsible for developing GNS' strategic direction for research on volcanoes, tsunamis, landslides and earthquakes, and she is a conduit between the natural hazards research community and senior decision-makers.



Denis Chang Seng, Ph.D.
Programme Specialist Ocean Science

Dr Denis Chang Seng currently works at the Intergovernmental Oceanographic Commission (IOC) of UNESCO in Paris, France. He is a Programme Specialist working jointly in the Tsunami Early Warning and Mitigation System Unit and the Global Ocean Observation System Office (GOOS). In the Tsunami Unit, he is the Technical Secretary for the Intergovernmental Coordination Group for the Tsunami Early Warning and Mitigation System in the North-eastern Atlantic, the Mediterranean and connected seas (ICG/NEAMTWS) which serves forty member states. Currently he is leading an IOC EU DG ECHO Project 'CoastWAVE' on building coastal resilience to sea level related hazards in the Mediterranean countries. He is also IOCs focal point for Multi-Hazard Early Warning Systems and is a member of IN-MHEWS. Previously, Denis was UNESCO's Natural Science Programme Specialist and Advisor for the Pacific Island States based in Apia, Samoa. Earlier, he also worked as a research associate at the United Nations University-Institute for Environment and Human Security (UNU-EHS) in Bonn, Germany.



Tuna Onur, Ph.D.

Earthquake Hazard and Risk Consultant Programme Specialist Ocean

Dr. Onur is a catastrophe risk consultant based in Victoria, BC, Canada, specializing in the modelling and communication of seismic hazard, structural vulnerabilities and financial losses nationally and internationally. She has over 25 years of experience in all aspects of earthquake risk estimation and has been serving on the National Building Code of Canada's Standing Committee on Earthquake Design for 14 years. Her professional experience includes both private and public sector positions as earthquake hazard researcher, as lead earthquake risk modeller, and as a subject matter expert advising engineering firms, governments, the insurance industry and financial regulatory agencies. Dr. Onur is also involved in various capacity building initiatives integrating probabilistic seismic hazard assessments into modernization of building codes in the Middle East, Caucasus and Central Asia. She teaches earthquake engineering at the University of Victoria and continues to be actively involved in seismic risk research.



Steve Hill, FAusIMM FGSAust.

Chief Scientist – Geoscience Australia

Dr Steven Hill has been the Chief Scientist at Geoscience Australia since 2018 and since July 2022 has also been the acting Chief of the Place & Communities Division. As Chief Scientist, Steve is responsible for the strategic science leadership, influence and external engagement as expressed in Geoscience Australia's decadal Science Strategy. As acting Chief of Place & Communities Division, Steve has direction of Geoscience Australia's community safety, national location information and its programs in Australia's marine jurisdiction and the Antarctic. Prior to this he worked as South Australia's Chief Geologist and Director of the Geological Survey of South Australia from 2013 to 2018, after having been a student, researcher and lecturer for over 20 years at the University of Melbourne, The Australian National University, the University of Canberra and the University of Adelaide. Steve was an active member of four Cooperative Research Centres that brought together university-government-industry sectors and is widely recognised for his passion and knowledge of geoscience and team leadership, especially for geoscience driving our connection to our country and how we best live with it.



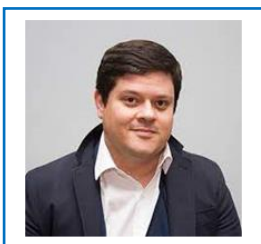
Nick Horspool, Ph.D Eng.
Senior Risk Scientist, GNS Science, New Zealand

Nick Horspool is a Senior Risk Scientist at GNS Science, a New Zealand Government Research Institute. Nick has 15 years' experience in disaster risk management. Nick's work involves research and undertaking applied projects that develop natural hazard risk models to quantify the impact natural hazards have on communities. Prior to joining GNS Science, Nick worked for Geoscience Australia on disaster risk management projects across the Asia-Pacific region. Nick has a MSc in Seismology and PhD in Engineering.



Iswandi Imran, MAsc., Ph.D., Prof.
Structural Engineering Specialist

Iswandi Imran is a Professor in the Faculty of Civil and Environmental Engineering, Institut Teknologi Bandung, Indonesia, where he received his BSc degree in civil engineering. He received his MAsc and PhD degrees from the Department of Civil Engineering, University of Toronto, Canada. His research interests include constitutive modelling of concrete & other cementitious materials, earthquake resistant R/C structures (bridges and high-rise buildings) and seismic retrofit of R/C structures. He is also a registered Professional Engineers in Civil and Structural Engineering. He has involved in the design of many mega infrastructure projects in Indonesia. Right now, he is the Director of Research Center for Disaster Mitigation, Institut Teknologi Bandung and the member of Advisory Board in the National Center for Earthquake Studies. He is also the Member of Bridge Safety Committee and Construction Safety Committee in the Ministry of Public Works and Public Housing of Indonesia.



Jorge Crempien, Ph.D.
Earthquake Seismologist

Jorge Crempien is a seismologist and engineer working as an assistant professor at Pontificia Universidad Católica de Chile. He completed his Ph.D. at the University of California, Santa Barbara in 2015, and currently works on research topics such as earthquake seismology and consequences of such as strong ground motion and tsunami phenomena, as well as the impacts these have on the built environment. Crempien leads several research projects funded by ANID (Chilean National Science Foundation), and co-leads the Disaster Research Workflow initiative within CIGIDEN, a FONDAP-CONICYT center of excellence.



Leigh Wolfrom, M.A.
Policy Analyst

Leigh Wolfrom is a policy analyst in the OECD's Directorate for Financial and Enterprise Affairs where he leads the directorate's work on the financial management of catastrophe risk. In this role, he has provided analysis and reports to the OECD Insurance and Private Pensions on a variety of disaster risk financing issues, including the financial management of flood risk, the contribution of reinsurance markets to managing catastrophe risks, the potential contribution of emerging technologies to disaster risk management and financing and the role of catastrophe risk insurance programmes in enhancing insurance availability and affordability. He led the development of the OECD guidance on establishing disaster risk financing strategies to address the financial impacts of natural and human-made catastrophes. He has also developed a number of reports on emerging catastrophe perils, such as cyber risks and infectious disease outbreaks, including a report on responding to the pandemic protection gap and an examination of insurance coverage for cyber-terrorism. Prior to joining the OECD, Mr. Wolfrom worked in the Financial Sector Policy Branch at the Canadian Department of Finance and at Global Affairs Canada on international financing issues. Mr. Wolfrom has an M.A. in International Affairs from Norman Paterson School of International Affairs (Carleton University) and a B.A. in Economics from the University of British Columbia.



Dr. Kate Moran, PhD, PEng, FCSSE
President & CEO, Ocean Networks Canada

Prof. Kate Moran is the President & CEO, Ocean Networks Canada. From 2009 to 2011, Moran was seconded to the White House Office of Science and Technology Policy where she served as an Assistant Director and focused on Arctic, polar, ocean, the Deepwater Horizon oil spill, and climate policy issues. Professor Moran is active in public outreach on topics related to the Arctic, ocean observing, and climate change. Kate Moran TEDx Talk. Moran co-led the Integrated Ocean Drilling Program's Arctic Coring Expedition, which was the first deepwater drilling operation in the Arctic Ocean. This expedition successfully recovered the first paleoclimate record from the Arctic Ocean. She also led one of the first offshore expeditions to investigate the seafloor following the devastating 2004 Indian Ocean earthquake and tsunami.

Professor Moran is active in public outreach (through public lectures, national panel discussions, and teacher training) on topics related to the Arctic, ocean drilling, and climate change. Moran has testified on climate change to the U.S. Senate Committee on Environment and Public Works. At the University of Rhode Island, Moran spearheaded a research initiative on offshore renewable energy.



Maria Przyłucka, Ph.D.

Chief Specialist in Geohazards and Engineering Geology

Graduated in Geodesy and Cartography, specialized in Photogrammetry and Remote Sensing at Warsaw University of Technology in Poland. Since 2010, she has been working at the Polish Geological Institute – National Research Institute in Remote Sensing section, currently under Geohazard Center Department, where she conducts research on different types of geohazards using remote sensing and photogrammetry modern techniques. She is involved in different international and national projects associated with the analysis and the use of remote sensing methods to study the terrain deformation due to various geological process, such as shell gas exploitation, salt dome mobility, underground coal mining and landslides. In her work she specializes in remote sensing techniques, especially radar interferometry, optical imagery or LIDAR data. In 2017 she was awarded a doctoral degree for the work entitled “Geostatistical analysis of the conditions of terrain surface subsidence identified using satellite interferometry in the Upper Silesian Coal Basin”.



John Makario Londono, M.Sc, Ph.D.

Volcanologist and seismologist expert in geohazards

Geologist with more than 34 years of experience in volcano and seismic monitoring, geological hazards and risk assessment. Expert in geographic information systems applied to geological risk assessment. More than 30 years of teaching geohazards and risk assessment at several universities in Colombia.

Expert in seismic tomography and volcano seismology.

Currently, technical director of Geohazards at Colombia Geological Survey.



Atalay Ayele, Ph.D.
Geophysicist (Seismologist)

Atalay Ayele is Prof. of Geophysics (Seismology) who was, until recently, director of the Institute of Geophysics Space Science and Astronomy of Addis Ababa University and currently heading the seismology unit. He is involved in teaching and advising postgraduate students, coordinating and running the national seismic station network of the country, data analysis and research. He coordinated and participated in several seismic experiments in Ethiopia conducted in collaboration with overseas researchers in the last couple of decades. He was Coordinator of sub-Saharan Africa Global Earthquake Model (GEM) and founding president of the African Seismological Commission (AfSc). He is Visiting Fellow of Leeds and Bristol Universities. Prof. Ayele is a fellow of the Ethiopian Science Academy. He is the 2021 international award recipient of the American Geophysical Union (AGU) in recognition for making an outstanding achievement.



Andrew Tupper Ph.D, B.Sc (Hons).
Principal Consultant, Natural Hazards Consulting

Dr Tupper is a meteorologist with a focus on cross-disciplinary warning operations. His career began with the Australian Bureau of Meteorology, working in aviation forecasting, climate information, computing, and operations leadership in tropical meteorology. He then specialised in the science and operations of the International Airways Volcano Watch, the international system to keep aircraft passengers safe from volcanic clouds. During his career with the Australian Government, Dr Tupper was also the Bureau's Northern Territory Manager, the head of the National Operations Centre in Melbourne, where he was also the co-director of Australia's Joint Australian Tsunami Warning Centre, and then the Bureau's State Manager for Victoria.

Dr Tupper has managed many operational tropical cyclone, flood, severe thunderstorm, volcanic eruption, tsunami, and bushfire events, as well as representing Australia in warnings policy development and science advisory roles at the UN's International Civil Aviation Organisation and World Meteorological Organisation (WMO). Since becoming an independent consultant in 2020, Dr Tupper has mainly worked in multi-hazard early warning system projects.