

PRESS RELEASE

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Reducing disaster risk for the poorest citizens in tomorrow's cities

Over 50 per cent of the world's population lives in cities. In low-to-middle income countries, more than two billion city dwellers face the threat of floods, earthquakes, landslides, volcanoes and other natural hazards. By 2050 this figure is expected to double as cities grow and climate change increases the likelihood of extreme weather. The majority of this urban area is yet to be built and this provides a unique window of opportunity to plan disaster risk out of tomorrow's cities.

The British Geological Survey (BGS) is a research partner in a new £20 million project aiming to do just that. The [UKRI GCRF Urban Disaster Risk Hub](#) is a five-year venture aiming to embed disaster risk management into the urban planning of four cities across the world by integrating resilience against extreme events.

The cities of Kathmandu (Nepal), Istanbul (Turkey), Nairobi (Kenya) and Quito (Ecuador) have been chosen based on their exposure to various natural hazards, variation in urban layout, development status and governance. Designed to reinforce existing initiatives in these cities, the hub will analyse the social and political drivers of urban disaster risk and develop a precisely targeted suite of decision support tools to help planners examine the consequences of different development choices.



Quito, capital of Ecuador, sits on the side of an active volcano.



The hub director, Prof John McCloskey of the University of Edinburgh, said, 'Historical compromises need not be repeated. The GCRF Hub provides a generational opportunity to change the future for the poor in tomorrow's cities. We approach this opportunity with excitement, enthusiasm and belief.'

The hub will help cities meet the [Sustainable Development Goals](#) (SDGs) set out by the United Nations, particularly SDG 11, 'Make cities and human settlements inclusive, safe, resilient and sustainable' and SDG 1.5, 'Build the resilience of the poor and those in vulnerable situations and reduce their exposure and vulnerability to climate related extreme events and other economic, social and environmental shocks and disasters.'

The Urban Disaster Risk Hub is funded by [UK Research and Innovation's Global Challenges Research Fund](#) and brings together over 100 scientists, engineers and policymakers from more than 50 organisations, fielding multidisciplinary teams to enhance sustainable urban development, risk-informed urban planning and multihazard decision making.

BGS scientists are contributing with their expertise in seismology, remote sensing, volcanic hazards and multihazard approaches to disaster risk reduction. Dr Colm Jordan (team leader, earth and planetary observation and monitoring) will develop and apply earth observation research to characterise and strengthen resilience to hazards affecting urban environments. This is in coordination with other BGS projects ([METEOR](#) and [Geoscience for Sustainable Futures](#)) that are addressing multihazards, exposure and vulnerability. Dr Ekbal Hussain (remote sensing geoscientist) will investigate the use of automatic alerts when there are unexpected changes in ground motion around key sites, for example at volcanoes, hill slopes prone to landslides or regions around critical infrastructure. Dr Margarita Segou (seismologist) will focus on improving the understanding of earthquakes in the hub cities. Dr Joel Gill (international development geoscientist) will explore multihazard scenarios in the cities and will help facilitate the exchange of multihazard approaches to risk reduction between cities.

Dr Martin Smith, BGS science director for global geoscience, said, 'Urbanisation is a rapidly developing and major challenge in the global south. There is an urgent need to protect lives, livelihoods and infrastructure by embedding research for disaster risk reduction into all aspects of development and planning. By facilitating new collaborations across diverse disciplines, sectors and nations, this hub has an exciting opportunity to deliver global impact that benefits some of the world's poorest communities. At the BGS, we look forward to drawing on our international development and disaster risk reduction experience to support the hub, whilst enriching our understanding of disasters through our engagement with others.'

Gehendra Gurung, from the NGO Practical Action in Kathmandu, said, 'The GCRF programme will strengthen multihazard risk assessment to help the decision makers in Kathmandu precisely see the drivers of risk and help to identify geographical areas posing risk now and in future development. It will help decision makers to identify and prioritise development options that reduce risk rather than aggravate it and help sustain this process through policy interventions. The GCRF Hub will vastly improve development decisions in Kathmandu.'

The BGS is also participating in another UKRI GCRF-funded project, [One Ocean Hub](#). This £20 million programme will transform the global response to the urgent challenges facing our oceans.