

PRESS RELEASE

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Understanding volcanic risk

The British Geological Survey is celebrating progress in a Government-led partnership to better understand risks to the UK from Iceland's volcanoes this week by publishing a Cabinet Office-commissioned report online. The partnership involves leading scientists from the British Geological Survey, the Met Office, Leeds and Bristol universities, the Centre for Ecology and Hydrology, government departments and other agencies and academic institutes. It is part of work being led by the Cabinet Office to prepare for one of the highest impact natural hazards in the Government's National Risk Assessment (NRA).

The [report](#) briefly describes the devastating 1783-4 'Laki eruption' at the Grímsvötn volcano in Iceland which resulted in some documented impacts in the UK, Europe and wider afield. It also presents the results of an expert elicitation that provided preliminary uncertainties on the parameters needed to model atmospheric dispersal of eruptive gases and aerosols from such an eruption and makes some recommendations on how to better understand the risk.



Moss-covered cinder cones and lava flows from the 1783-4 eruption of Grímsvötn volcano.

The report is now being used by scientists in the partnership as a basis for modelling possible future eruption scenarios in order to investigate the likely consequences of a 'Laki-type' eruption for the UK and Europe in modern times. We know from historical records and geological research that the 'Laki eruption' was one of the largest of its type in the last 1100 years so it's vital that Iceland, UK and Europe have an understanding of these potential risks.

The risk to the UK from this type of volcanic eruption abroad was added to the Government's NRA in 2011 and assessed as one of the highest priority risks facing the UK. The BGS, the Met Office and the University of Leeds are collaborating with the Cabinet Office's Civil Contingencies Secretariat to increase the understanding and planning for this risk.

Chloë Smith MP, Minister for Political and Constitutional Reform says 'The BGS Source Characterisation report is an important step to further our understanding of the effects of a gas-rich volcanic eruption. This type of eruption is one of the highest priority risks in the National Risk Assessment. The government is working to ensure that appropriate plans are in place to respond to a future eruption.'



Sue Loughlin, Head of Volcanology at the British Geological Survey says 'This new government-led partnership is going to ensure that strong collaborative science underpins appropriate civil contingency planning for volcanic risk in the UK. The Cabinet Office-commissioned report began the process of identifying the key scientific issues. It has facilitated preliminary modelling that will allow those in government to begin to plan for and facilitate a coordinated and timely response to future volcanic eruptions of this type'.

The BGS is committed to working with colleagues at the Icelandic Meteorological Office (Iceland's volcano observatory) and University of Iceland as this work progresses as well as other partners across Europe.

The report can be accessed at

<http://www.bgs.ac.uk/research/volcanoes/LakiEruptionScenarioPlanning.html>

Ends

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Notes for Editors

The following are available for interview:

- Dr Sue Loughlin, British Geological Survey
- Dr Evgenia Ilyinskaya, British Geological Survey

Follow the BGS volcanology team [@BGSvolcanology](https://twitter.com/BGSvolcanology)

For additional information go to: http://www.bgs.ac.uk/research/earth_hazards_vh.html

The British Geological Survey

The British Geological Survey (BGS), a component body of the Natural Environment Research Council (NERC), is the nation's principal supplier of objective, impartial and up-to-date geological expertise and information for decision making for governmental, commercial and individual users. The BGS maintains and develops the nation's understanding of its geology to improve policy making, enhance national wealth and reduce risk. It also collaborates with the national and international scientific community in carrying out research in strategic areas, including energy and natural resources, our vulnerability to environmental change and hazards, and our general knowledge of the Earth system. More about the BGS can be found at www.bgs.ac.uk.

The Natural Environment Research Council

The Natural Environment Research Council (NERC) is the UK's main agency for funding and managing world-class research, training and knowledge exchange in the environmental sciences. It coordinates some of the world's most exciting research projects, tackling major



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About the partners

Further information about some of our project partners is available from the following web pages.

Cabinet Office <http://www.gov.uk/government/policies/improving-the-uks-ability-to-absorb-respond-to-and-recover-from-emergencies> @UKResilience

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Leeds University http://www.leeds.ac.uk/info/20014/about/177/media_relations

Bristol University <http://www.bristol.ac.uk/media/>

Centre for Ecology and Hydrology <http://www.ceh.ac.uk/>