



## **Experts launch £22m project to provide global environment solutions**

Leading scientists and key figures from industry and government met at the Royal Society of Edinburgh on Friday 25 May for the launch of a £22m initiative to address some of the earth's most pressing environmental problems.

The Scottish Alliance for Geoscience, Environment and Society (SAGES) aims to link discoveries in earth and environmental science with the needs of society. It is anticipated that the findings will be made available to government policymakers, and could form the basis of new technologies for commercial development.

Academic researchers from around the world are being recruited to the initiative, which will collaborate in Scotland to examine links between the oceans, atmosphere, biosphere and land, and the man-made drivers behind environmental change, in order to predict how the planet will react in future. The burning of fossil fuels and deforestation have increased greenhouse gases in the atmosphere. Global warming, flooding, droughts, rising sea levels and ocean acidification indicate the planet may be under stress.

SAGES scientists will work out of the Universities of Aberdeen, Abertay, Dundee, Edinburgh, Glasgow, Paisley, St Andrews, Stirling and the Scottish Association for Marine Science-University of the Highland and Islands Millennium Institute, along with the Scottish Universities Environmental Research Centre. The £22m collaboration has secured £6.5m from the Scottish Funding Council and the balance from the academic partners. The project will initially run for five years.

Research will focus on three themes. The first, landscape dynamics, will combine new dating techniques to reveal how landscapes evolve, focusing on rivers, water, soil erosion, ice sheets, coasts and landslides. This will allow scientists to predict the impact of future climate trends on water supply, coastal flooding and soil erosion.

A second theme will focus on the earth's carbon cycle. Scientists will look at release of greenhouse gases, and influences on their concentration in the atmosphere. The findings will help understanding of ecosystems and their sensitivity to change. The results will guide policy on land management to minimise release of greenhouse gases.

The third theme, atmosphere, oceans and climate, involves modelling of past conditions. Research will focus on the localised effects of climate change, such as floods, droughts and storms. The results will allow better predictions of climate at global and regional scales.

Researchers will engage in cross-disciplinary work, and a virtual centre for earth system dynamics will integrate the modelling skills and expertise from different disciplines. Also, a graduate school will offer postgraduate training on a Scottish-wide basis, and access to world-class facilities will be shared between the partners.

Professor David Sugden of the University of Edinburgh, SAGES Acting Director, said: “SAGES has caught the imagination of the international community and we have been able to recruit stars from around the world. Of the 34 posts filled so far, 19 have gone to overseas scientists and include six professors from the USA, Australia and mainland Europe. These international experts complement the world-class science-base in the SAGES field that has been built up in Scotland over the past 30 years.”

**To find out more about SAGES, please visit: [www.sages.ac.uk](http://www.sages.ac.uk)**

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