

Post-Doctoral Research Opportunity: Securing Scotland's soils in a changing climate

ClimateXChange (CXC) wishes to offer a one-year post-doctoral research opportunity to support Scottish Government colleagues in the development of a routemap for a cross-sectoral and transdisciplinary action plan to deliver improved soil health across Scotland.

1. The need for this research

The consultation draft of the [Scottish National Adaptation Plan 3](#) recognises the importance of healthy soil and sets out a number of actions relevant to the resilience of Scottish soils. These cut across several topic areas and also the boundaries of different delivery partners.

Scotland already has a wealth of scientific data and analysis on the soil resource, but it is a complex field and it has proven challenging to direct this scientific evidence towards delivery of outcomes for policies that support adapting to a changing climate.

Responsibility for soils policy spans across the Scottish Government and the final Scottish National Adaptation Plan (SNAP3) will provide leadership and direction for managing this vital natural asset.

2. Background

The [Climate Change Committee](#) (CCC) has identified soil health as a priority risk for drastic and immediate action in the third [Climate Change Risk Assessment](#). The CCC continued to highlight this policy area as being critical to climate adaptation in their March 2022 progress report '[Is Scotland Climate Ready?](#)'.

Soil health is a cross-cutting issue, with policy interests across government, including agriculture, forestry, land use, energy, development, food production, biodiversity, economy and public health.

Scottish soils are at the heart of all life and underpin much of our social and economic activity. Nutrient rich soils help produce fresh crops and healthy trees. Our peatlands and carbon-rich soils sequester and store carbon. Soils also help control the flow and quality of water in our rivers, contain and support important biodiversity and habitats, preserve our cultural and archaeological heritage and provide a platform for buildings and roads.

However, exacerbated by climate change, soils are at high risk of damage through compaction, erosion, flooding and drought and loss of organic matter. These changes have local, regional and national impacts which can be difficult – and costly – to reverse.

3. Project scope and aim

The SNAP3 consultation draft identifies a policy outcome that *"soils are healthy and provide essential ecosystem services for nature, people and our economy"*. This project will work with key policy leads to design a routemap for the key actions that will deliver to this outcome.

The research will build directly on the results of a stakeholder workshop to be held in spring 2024 that will confirm the strategic priorities for action through the routemap.

Stakeholders will include, but not be limited to: Scottish Government policy teams, their agencies and non-governmental organisations with an interest in soil management.

i. **The research question**

This research will explore a complex cross-sectoral, multi-agency policy issue in the context of supporting development of a specific policy outcome. It will consider the following question:

How can public policy research support the design of a routemap to drive forward delivery of healthy soils in Scotland?

To achieve this the researcher must engage closely with a range of soil health stakeholders and policy leads.

4. Audience

The work is commissioned on behalf of the Scottish Government, and of particular interest to the Climate Change Adaptation policy team and the Land Use Transformation Programme Board.

The results must be presented in a format and language that can be easily understood by readers across different policy areas and without an academic background. Written outputs must be well presented and written in Plain English.

5. Outputs

The primary output will be a final report in the CXC house style. The final report will cover:

- Agreement of final routemap by the Scottish Government's Land Use Transformation Programme Board
- Lessons for cross-sectoral and cross-disciplinary working for soil health policy
- A description of – and rationale – for the engagement activities
- Discussion of delivery options and routemap drafts
- Key steps for delivery of the routemap with accompanying narrative and engagement from identified soil policy leads
- Reflections on the routemap design process

We understand that the successful researcher will want to produce academic outputs (e.g. journal paper(s)). However, the primary output will be the above report to the Scottish Government and will follow the CXC reporting guidelines.

The ownership of the research material including the final report and any data produced as a result of the research lies with ClimateXChange on behalf of Scottish Ministers. The research may be published on the ClimateXChange website, the date and format of which will be determined by the Scottish Government and ClimateXChange. One or more drafts are likely to be required before a final version is agreed.

ClimateXChange supports the Scottish Government Open Research Guidance for RESAS, summarised as “open as possible, closed as necessary.” This means that all products will be placed in the public domain, unless there is a strong argument otherwise (for example to comply with data protection regulations). Descriptions of all projects and related products will be uploaded to the ResearchFish system.

6. Project governance

A Soil Health Working Group will be established to support delivery of the project. The steering group's role is to guide and direct the research. It will include representatives from Scottish Government and ClimateXChange, along with the successful academic institution and researcher. It is also likely to include academic expertise in Scottish soil science. External members will be considered depending on the methodology/ approach.

The lead contact for ClimateXChange will be the CXC Climate and Land Use Project Manager, Sarah Govan, who will liaise with the successful institution and the lead researcher. Regular update calls will be scheduled between the researcher, the Scottish Government and the CXC Project Manager to discuss progress and address any issues, escalating to the researcher's Principal Investigator (PI) and or steering group for consideration where necessary.

7. Project timetable

Milestone	Completed by
Interview panel – if required	22 May 2024
Appoint successful researcher/ institution	29 May
Confirmation of arrangements, including supervisory group and researcher/ institution	31 May
Confirm arrangements for the Soil Health Working Group with whom the researcher will work closely	31 May
Project kick-off meeting, to confirm <ul style="list-style-type: none"> • Scope • Boundaries • Timeframe • Secondment arrangements with the Scottish Government 	28 June
CXC / Scottish Government induction	26 July
Regular discussion of progress (researcher, CXC & Scottish Government)	Fortnightly
Meet with Soil Health Working Group – monthly, starting in August	16 August
Support finalisation of Soil Health policy articulation in final Scottish National Adaptation Plan	September
Host 2 nd Workshop, follow up to May	December
Submission of draft routemap to the steering group	24 January 2025
Present final routemap to LUTPB for approval	21 February
Submission of final report (including routemap)	31 March

There is the possibility of a six month contract extension – if desired by the Scottish Government – which will be discussed once the project has reached a midway point.

8. Application process

Applicants are invited to put forward proposals on how to best meet the research aims within the budget available. A full explanation of your chosen approach meeting the 'award criteria' and key tasks listed below, including any limitations, should be provided.

The research will use a range of action research and engagement methods working with government policy officials and stakeholders (including government agencies, research institutes and non-governmental organisations). Applicants should address the following key tasks in their submission:

- Induction/engaging with core Scottish Government team
- Develop stakeholder engagement plan
- Engagement activities
- A plan to test delivery options and routemap drafts
- Report containing options, assessment of pros and cons, lessons for cross-sectoral and cross-disciplinary working for soil health policy, and routemap

The researcher will work closely with the Climate Adaptation Team as they prepare to publish the final Scottish National Adaptation Plan 3 (currently out to consultation).

9. Eligibility

Applicants must demonstrate they meet the following eligibility criteria for the research associate and the hosting organisation.

i. Organisational

- existing in-house capacity to carry out research that extends and enhances other research happening in the UK
- the capability and skills to independently undertake and lead a research programme

ii. Individual

- have completed your PhD at a UK research organisation
- have at least 12 months active postdoctoral experience (at full-time rate) measured from passing your viva voce to the competition closing date
- be eligible to work in the UK for the period of the research

10. Submitting a proposal and award criteria

Deadline for submissions – 12 noon on **Tuesday 7th May**. Submissions should address the following criteria, which will form the basis for assessment

Price 20%

Quality 80%

Quality criteria	Descriptor	Weight
Research expertise	<p>Detail the knowledge, experience, expertise and capability that is required for this research, including as a minimum:</p> <ul style="list-style-type: none"> • The researcher • The individual (proposed Principal Investigator or Supervisor) who will be supporting the researcher • Evidence should be provided of previous research and knowledge exchange work relevant to the research requirement (including working hyperlinks) with an emphasis on policy-focussed research and communication. • A statement demonstrating institutional capacity and CVs of relevant staff should be provided. 	25%
Research methodology	<p>Detail your approach to a high quality and workable research methodology that will deliver the outputs in the required timescale, including as a minimum:</p> <ul style="list-style-type: none"> • How the evidence will be identified, reviewed and assessed • How the proposed analytical steps will address the research objectives • The suitability, robustness and limitations of the methodology • Ethical procedures that will be followed 	25%
The need for this research	<p>Demonstrate your understanding of the requirements, including as a minimum:</p> <ul style="list-style-type: none"> • The policy environment and the supporting role of research • The cross-sectoral nature of the project • The need for this research • The research aim, and how the proposal will address this need 	15%
Quality assurance	<p>Provide details of quality assurance procedures to demonstrate how the research will be continuously delivered to a high standard, including as a minimum:</p> <ul style="list-style-type: none"> • issues of quality control at different stages of the project, including initiation, stakeholder engagement, analysis and report writing • Provide a risk assessment matrix detailing any risks identified in relation to the delivery of this contract, and proposed mitigation measures to minimise their probability and impact 	15%

Your submission should be a single document of no more than 8 pages (excluding CVs) in PDF format with the file name in the following format name of submitting organisation – PDR-IQ04-2024.

File size should not exceed 5MB.

You should highlight any potential conflicts of interest in your proposal.

The costs of proposals for this project are expected to be no more than £130,000 (excluding VAT). However, ClimateXChange would welcome proposals for less than this amount. We welcome consortium bids.

Depending on the quality of proposals received, CXC may chose not to appoint any contractor.

11. Clarification questions

We will respond to any clarification questions received while the project call is open and publish them on the CXC website on the [Work with us page](#).

12. Terms and conditions

The institution/organisation of the successful applicant shall be required to enter into a contract for services/research with the University of Edinburgh whose terms shall govern the post-doctoral research opportunity (the “Contract”).

The payment terms for the Contract will be expressly linked to the Project timetable and will be subject to milestone delivery.

The contract for ClimateXChange (between University of Edinburgh and Scottish Government) is scheduled to end in March 2025.

13. Travel policy

In line with the [Scottish Government travel strategy](#) and the [University of Edinburgh Sustainable Travel Policy](#), we expect contractors to use low-carbon travel options for any in-person meetings, and to only travel when necessary.