

British Geological Survey

Name of Organisation:

British Geological Survey (BGS)

Fellowship Summary

The training programme will build on the experience of hosting 14+ fellows since 2012. Firstly, the primary aim is to provide experience and training in modern geochemistry laboratories, alongside learning systems of work (e.g. Quality Assurance, H&S, infrastructure maintenance). Further objectives may include experience in contributing or leading on scientific outputs, use or presentation of data for interpretation (e.g. statistics, QGIS - depending on interest). The trainee will be led through a simplified Theory of Change process to evaluate their current laboratory capability and then how lessons learnt can be applied to their home situation for onward improvement and cascading of information to colleagues. Depending on the candidate, we will provide flexibility for writing skills (papers, proposals, reports, standard operating procedures) and experimental planning.

Weblink for Candidates

www.bgs.ac.uk

Eligibility

The candidate should have an environmental geochemistry background, but with a primary interest in laboratory activities. We have focussed on building a group across Africa with previous fellows to ensure onward benefit for fellows but are open to other contributors.

Proposed Fellowship Dates

17/02/2025 to 16/05/2025

Proposed Activity

Arrival 19/20 February

Provisional dates: Week 17th February 2025 (three candidates)

Arrival 16th February, then from 17th, induction to BGS (HR, H&S), orientation within BGS campus. Review existing capabilities and training requirements to refine programme.

Trainees can bring some of their own samples to undertake analytical chemistry training to provide relevant context, otherwise samples and data will be provided for them from on-going projects in Africa.

18-21st Introduction to systems of work, H&S, quality assurance, applicability to African context.

24-28th - Evaluation of existing datasets for onward training courses in GIS and Geostatistics - training in data cleaning for onward management, assessment of IT skills.

3rd-7th March - Modern methods of analyses – use of isotope tracers, elemental speciation to discern environmental pathways – benefit to understanding for collaboration internationally and for teaching purposes in home country. Include discussion with social scientists at BGS (BGS and Uni. Nottingham staff).

10-14th March - Visit to University of Plymouth - Communicating with stakeholders in study design through to dissemination of information at community level up to policy decision makers – practical examples for East Africa.

17-21st March - Shadow range of other laboratory techniques for soil and water analyses e.g. Ion Chromatography, TOC, soil pH/LOI. Reinforcement of mechanisms required in labs for safe working, quality assurance, training and development requirements for staff and building a mindset for the preventative maintenance of equipment, planning for running costs.

24-28th - Attendance at industry symposia for instrument manufacturers - likely CEM and Agilent in Glasgow tbc

31-4th April - Writing skills training – differing formats for public communication, scientific writing and policy briefs.

Utilise previous learning material generated via a British Academy funded writing workshop series for African ECRs.

7-11th April Evaluate quality assurance measures for laboratory methods, problem solving, readiness of data for publication in peer review or policy – appreciation for trust, confidence and transparency in data communication and decision making - connect into BGS L&D training schedule - timing to be flexible, but will be fee paying. Trainees will draw on BGS ISO accreditation experience and capacity strengthening worldwide. Trainees to learn how to incorporate, spot problems in others work and train in data integrity.

14-18th (Bank holiday easter 19th)

- Follow-up training on data handling and presentation systems - geospatial (GIS) and R for statistics using example scenario and datasets for practical exercises – on the job training with support from specialists. Guidance to further online support.

21-25th (BH easter 22nd)

- Follow up on labs shadowing, reinforcement or missed techniques.

28-2nd May - Scope out plans for follow-up funding for both research and laboratory support (cost recovery) – this will be discussed throughout, but set aside time here as a focal point and action plan for continuance of lessons learnt on return to home countries. We will draw in Theory of Change practices.

5-9th May - finalise their own lab flow plan.

12-16th May - write CSCUK report and blog, spare days for close-out.

17th return home.

Priority theme

Science and technology for development

Contact

For any queries, please contact the CSC on professional.fellowships@cscuk.org.uk or mwatts@bgs.ac.uk who is administering the programme at BGS.