# Generic job description and selection criteria

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| Job title | Postdoctoral Researcher |
| Department  | Humanities/Social Sciences |
| Grade and salary | Grade 7  |

## Carbon Dioxide Removal and Energy Access in Kenya

## Project overview

## Kenya has emerged as a key hub for work on the transition to low-emissions climate-resilient development in Africa. Geothermal energy is expected to play a crucial role in this transition, and is a fundamental resource for the country’s aspirations to greater industrialization and universal energy access.

## Kenya is also being considered as a potential hub for the development of new capabilities for large-scale carbon dioxide removal (CDR). Geothermal energy is again key to these expectations, as the natural resource that would make energy-intensive CDR processes carbon negative.

## Yet there has been little anticipatory research and policy engagement to map the costs and benefits of a significant development of CDR capabilities powered by geothermal energy in Kenya. There is limited understanding of how this development may interact with Kenya’s low-carbon climate-resilient growth agenda, particularly its achievement of ‘green’ industrialization and universal energy access plans.

## This is a significant gap. Although there are potential synergies between the development of energy-intensive CDR infrastructures and the country’s sustainable development goals, there are also tensions and trade-offs that need to be characterized and discussed in detail. These discussions should inform policy action at the national and potentially regional scale on how the development of energy-intensive CDR might impact key sustainable development objectives.

## The research project ‘Carbon Dioxide Removal and Energy Access in Kenya’ will dives into these issues to better understand how the development of geothermal-powered industrial CDR in Kenya might interact with green growth and universal energy access agendas. The objectives of the project are:

## To understand the factors that currently encourage and limit the potential of coupling geothermal energy with industrial CDR in Kenya’s Rift Valley region.

## To understand the potential social, environmental and economic impacts of an expansion of geothermal production to power industrial CDR .

## To identify policy and regulatory requirements for equitable development of geothermal-dependent CDR in Kenya.

## To investigate how existing financing mechanisms and instruments, both in the public and private sector, could be used to develop equitable geothermal-based CDR systems in Kenya.

# Job description

## Overview of the role

The post holder will be the lead researcher on the ground for this project. Research will be conducted primarily via interviews and workshops with regional and national stakeholders in Kenya to gain a better sense of potential futures for the combination of geothermal energy and CDR activities.

The post holder will report to Jessica Omukuti and Javier Lezaun. The post holder will be a member of the Institute for Science, Innovation and Society (InSIS), the School of Anthropology and Museum Ethnography (SAME), and the Oxford Net Zero (ONZ) initiative.

### Responsibilities/duties

* Manage own academic research and administrative activities. This involves small scale project management, and the co-ordination of multiple aspects of work to meet deadlines.
* Adapt existing and develop new research methodologies and materials.
* Prepare working theories and analyse qualitative and/or quantitative data from a variety of sources, reviewing and refining theories as appropriate.
* Develop ideas for generating research income, and present detailed research proposals to senior researchers.
* Collaborate in the preparation and writing of research publications.
* Present papers at conferences, workshops or seminars.
* Act as a source of information and advice to other members of INSIS and ONZ on methodologies or procedures used in the research.
* Represent InSIS and ONZ at external meetings/seminars, either with other members of the group or alone.
* Carry out collaborative projects with colleagues in partner institutions, and research groups.

## Selection criteria

### Essential

* Hold a relevant PhD/DPhil in a relevant social science discipline (e.g. Anthropology, Geography, Policy Studies; Development, Area Studies).
* A good understanding of climate and/or energy policy, net zero frameworks, and key approaches to carbon dioxide removal.
* Ability to manage own academic research and associated activities based on set timelines
* Previous experience designing and conducting stakeholder consultations and the ability to develop and maintain good working relationships with stakeholders.
* Excellent communication skills, including the ability to write for different audiences, present research proposals and results, and represent the research group at meetings.

### Desirable

* Experience of previous fieldwork in Kenya/East Africa
* Experience of independently managing a discrete area of a research project
* Experience of academic publishing.