

Cool Farm Methods Modeller - Cool Farm Alliance – Role Description

The Cool Farm Alliance (CFA) is a science-led, not-for-profit membership organisation that owns, manages and improves the Cool Farm Tool (CFT), which is used to measure on-farm environmental sustainability. Usage of both the CFT and membership of the CFA has grown rapidly, establishing itself as a globally leading quantification tool and platform.

As the momentum for sustainability grows amongst the world's leading food and beverage companies, an increasing number of CFA members are stepping into strategies that incorporate regenerative agriculture to help deliver their net zero and broader sustainability goals.

The translation of peer reviewed science into robust and meaningful methodologies for our quantification calculations is a key foundation for our work as an Alliance. This in turn is essential for maintaining credibility and trust in our calculation tools.

The CFA is now looking for a Methods Modeller, with a sharp mind, who is passionate about climate change and sustainability impacts, and who is motivated to grow with us and support our continued success for the long run. The role will focus on developing models of carbon stocks and flows across agricultural systems, including crops and livestock, using the latest peer-reviewed evidence, open source and procured data, with an initial focus on soils. These models will be used to support our work in building a scientifically credible and robust cool farm tool GHG assessment pathway.

As an ideal candidate you will have a background/education in mathematical modelling with experience in ecological and/or climate science. You will have strong analytical skills and be experienced in handling and presenting data in a clear, concise, and accurate manner. You will report to Cool Farm Alliance's Science and Methods Manager.

If you have a background in science, are intelligent, personable, love numbers, have outstanding attention to detail, organisational skills and a solid work ethic, we would love to hear from you.

The role:

- Effective Conversion of Scientific Guidance into Code
 - Reviewing different modelling options and advising on approaches to take, working with the product team to enable development delivery of our digital calculation tools.
 - Development of calculations and models written in Python.
 - Delivery of greenhouse gas assessment methodologies, including GHG calculations, emissions and removals estimation modelling and uncertainty assessments.
 - Support the process of identifying credible science sources and translating these into credible quantification methods and models that support an enjoyable user experience in support of the transition to more regenerative agriculture.

- Quality Control and Data Accuracy
 - Contribute to product testing and provide recommendations on new features for our product development.
 - Work with the Science & Methods Manager, Product Manager and Technical Manager to develop detailed user and technical specifications for adding new methods to the CFT.
 - Quality assurance and technical description of calculations and models developed.
- Collaboration and Communication.
 - Working with our Cool Farm development team to deliver new methods into our Cool Farm Platform.
 - Coordination of methods sub-contractors.
 - Support our team with technical and project management queries.
 - Participation in and coordination of member working groups.
 - Provide technical insights and explanations of the methods and their development.
 - Support regular communications, both internal to the working group and external to the wider membership, keeping stakeholders updated on development progress.

Critical success factors:

- Effective Conversion of Scientific Guidance into Code: The ability to efficiently and accurately translate scientific guidance related to carbon stocks and flows in agricultural systems into functional code is essential. Success in this role hinges on the ability to develop models that align with the latest peer-reviewed evidence and methodologies.
- Quality Control and Data Accuracy: Success as a Methods Modeller requires an extremely keen attention to detail and a rigorous approach to quality control and testing of data models. Ensuring the accuracy of calculations, emissions, and removals estimation models is crucial for producing scientifically credible and robust greenhouse gas assessment methodologies.
- Strong Collaboration and Communication: The role involves working closely with cross-functional teams, including the product team, member working groups, and sub-contractors. Critical success lies in effective collaboration, communication, and coordination with these teams to deliver digital calculation tools, greenhouse gas assessment methodologies, and technical descriptions of models. Additionally, the ability to communicate complex scientific concepts in a clear and concise manner to audiences is vital.

Knowledge, experience & capabilities:

Essential requirements

- Have a higher degree (Masters or PhD) or with minimum five year's work experience in a relevant role, such as geographic, ecological or climate sciences.
- Experience in environmental modelling and programming with Python or a similar language to construct models of environmental change.
- Be able to critically appraise the relevance and accuracy of modelling approaches.
- Be extremely attentive to detail and rigorous in quality control and testing of data models.
- Excellent research & data analysis skills, including manipulation of large datasets.
- Strong written communication skills, which can communicate complex science to non-technical audiences.
- Proficiency with Microsoft Office suite or equivalent
- Strong self-motivation, self-starter willing to take the initiative to ensure that solutions are delivered on time.
- Passion for working towards a sustainable future.
- Fluency in English.

Desirable

- Have carbon modelling experience and a knowledge of relevant methodologies, including IPCC tier 1 to 3 approaches.
- Be familiar with or have experience in GHG reporting and GHG reporting standards, and an understanding of the strengths and weaknesses of the standards.
- Experience with soil carbon process-based approaches.
- Experience of carbon modelling to contribute to GHG inventories.
- Supported the development of decarbonisation plans or strategies.
- Knowledge about climate change impacts, mitigation and adaptation and familiarity with emerging narratives around natural capital and nature-based solutions.
- Bring creative, practical solutions and common sense thinking to solve real-world problems.
- Be confident and comfortable in learning new skills within a fast-paced environment.
- Good verbal communication skills.

General Information

Remuneration

The salary range for this role is £45,000 - £52,000, subject to experience.

Working arrangements

The CFA is a virtual organisation, so this role is home based. It is desirable to be located in the UK, with the ability for international travel up to 3 times a year.

Working hours

This is a full time, employed position. However, we offer flexibility for the individual to choose patterns of work that suit their lifestyle and commitments.

About the team

The Cool Farm secretariat is a small team based around the world who lead the Alliance, provide service, and support to our members and maintain the development of the Cool Farm Tool. This modeller role is key to expand our scientific and modelling technical base and forms the foundation of the credibility of the Cool Farm Tool.

Technical software expertise is available from the CFT developers, Product and Technical Managers and the Science & Methods Manager, in addition to being your line manager, can provide science and method guidance.

The CFA community is host to some world class expertise in the areas of science and methodology for GHG Emissions in agriculture. Direct access to this expertise is available.

Equity, Diversity & Inclusion

The Cool Farm Alliance is dedicated to fostering a culture of Equity, Diversity, and Inclusion (EDI). We believe that diverse perspectives, backgrounds, and experiences enrich our workplace and drive innovation. We seek candidates from all backgrounds and believe that diversity fuels innovation and that every team member's contribution is essential to our success. Our workplace fosters inclusion, open dialogue, and equal opportunities for all team members.

We are on a journey to dismantle bias and barriers to ensure that everyone has an equal chance to thrive within our organisation. Join us, to create a diverse and inclusive workplace where every voice is valued and respected. The Cool Farm Alliance is an equal opportunity employer, and we encourage candidates of all backgrounds to apply.

About the Cool Farm Tool

The CFT is an online agricultural sustainability tool and currently services some 30,000 users across 150 countries.

The CFT consists of multiple environmental impact quantification modules including greenhouse gas emissions, water, biodiversity, and food loss and waste. These modules are available for environmental evaluation of multiple crop and livestock types and species to empower our members and users to adopt regenerative agriculture at scale.

Selection Process

We appreciate your interest in joining our team, and we are eager to learn more about you. To assist us in assessing your application comprehensively, we kindly request that you provide both your Curriculum Vitae (CV) and a code example.

CV Submission

Please submit your CV in a standard format, such as PDF or Word document. Your CV should include essential information about your educational background, employment history, skills, certifications, and any other relevant details. This will help us understand your professional background and qualifications better.

Code Example Submission

Additionally, we would like to review a code sample that you have written, that showcases your programming expertise. The code can be related to a personal project, a coding challenge, or any work that highlights your coding skills. Alongside the code, please include a brief explanation of its purpose and any unique challenges or solutions you encountered during development.

Privacy and Confidentiality

Please be assured that any information you share, including your CV and code sample, will be treated with the utmost confidentiality, and used solely for the purpose of evaluating your application.

Applications

Kindly send both your CV and Code Example to Laura Alcock - laura.alcockconsultant@outlook.com by Friday 3rd November 2023. If you have any questions or require further clarification, please do not hesitate to reach out.