

Annual Report

2024-2025





Above: Professor Caroline Trotter

1 Director's Welcome

It is with great pleasure that I share this annual report highlighting the Cambridge-Africa programme's activities and achievements for 2024-2025.

This productive year saw us collaborate with the University's Mastercard Foundation programme to launch the CreSus Research Fund in early 2025. The established Cambridge-Africa ALBORADA Research Fund received record applications, catalyzing collaborative work across 16 African countries in areas from cancer research to biodiversity conservation and sustainable energy. The Postgraduate Research Symposium, showcasing Cambridge's African scholars, was a particular highlight.

We welcomed Adeniyi Emmanuel as ALBORADA Research Fund Coordinator and continue working with Parinaz Hariri as CreSus Research Fund Coordinator. Together with Programme Manager Corinna Alberg, we make a great team!

Thank you to our research fund panel members, reviewers, advisory group members and supporters for your efforts throughout the year.

With best wishes

Caroline Trotter

A handwritten signature in black ink, appearing to read "Caroline", with a stylized flourish at the end.

The Cambridge-Africa ALBORADA Research Fund received a record number of applications across 16 African countries.

About Cambridge-Africa

Cambridge-Africa is a University of Cambridge programme supporting African researchers and promoting mutually beneficial collaborations and equitable partnerships between Africa and Cambridge. Since its inception in 2008, collaborations have been developed with partners from 38 African countries, covering topics from archaeology to zoology.

The aims of the Cambridge-Africa programme are:

- Catalysing new, and strengthening existing collaborations, between Cambridge and African researchers and their Institutions
- Encouraging, facilitating and informing networks of researchers dedicated to contributing to outstanding research in Africa
- Providing an enabling academic environment for African early career researchers

The ethos of the programme and its partnerships are based on equity, transparency and trust. Our aim is for activities to be driven by needs identified by African partners in order to address African research priorities.

The Cambridge-Africa team's focus is on relationship building, connecting Africa and Cambridge based researchers with mutual research interests, for mutual benefit.

Through the partnerships that we foster, all researchers, both in Cambridge and in Africa benefit through gaining new knowledge and expertise. African researchers may make use of the expertise, resources and influence of the University of Cambridge to help them meet their goals. Cambridge broadens its global horizons and gains insights into the challenges and ways of meeting those challenges experienced by researchers and communities in Africa.



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A new partnership

Cambridge-Africa is a key player in the University of Cambridge's partnership with the Mastercard Foundation. We work closely with the Mastercard Foundation Cambridge team which is based in Mill Lane and expertly directed by Tabitha Mwangi, our former Programme Manager. This partnership focuses on sustainability and climate resilience and comprises two main elements, a Scholars Programme in Cambridge and the Africa Climate Collaborative.

Cambridge-Africa took the lead in the development and delivery of a new Research Fund, known (for now) as **The Mastercard Foundation and University of Cambridge Climate Resilience and Sustainability Research Fund (CreSus)**, which is part of the Africa Climate Collaborative. We launched the first round in January 2025, offering up to £20,000 for a Research Catalyst Grant or up to £50,000 for a Workshop Grant. As with the Cambridge-Africa ALBORADA Research Fund, applications are invited from pairs of researchers, one from an African university or research institute and one from the University of Cambridge, to promote equitable collaboration.

After a competitive process and robust evaluation, we awarded 21 Research Catalyst Grants and 11 Workshop Grants. Research Catalyst Grants will support collaborative research with African Principal Investigators (PIs) based in Cabo Verde, Ethiopia, Ghana, Kenya, Liberia, Madagascar, Mozambique, Nigeria, Rwanda, Senegal, Somalia and Uganda. Workshops will be held in Ghana, Kenya, Nigeria, South Africa and Uganda but many will involve participants from other countries, promoting cross-regional collaboration and knowledge exchange. Within Cambridge, PIs from 18 different departments received awards, highlighting the breadth of the research, which included topics as diverse as food security to sustainable construction. More details of funded projects are available on our website.

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Cambridge-Africa ALBORADA Research Fund

In 2024-5, 34 projects were funded through the Cambridge-Africa ALBORADA Research Fund from a record number of applications. The awards went to collaborations involving Principal Investigators (PIs) in 16 African countries working with 20 Cambridge departments (including allied research institutes such as NIAB, the National Institute for Agricultural Botany, and the Wellcome Sanger Institute). All six schools of the University of Cambridge were represented among the awardees. This was the first time awards were provided to collaborations involving PIs in Algeria, Morocco and Mauritius. As ever, awards covered a broad range of topics; we highlight some of these below.

Towards understanding long-term ecological changes in Gashaka-Gumti National Park for effective biodiversity conservation and management in Nigeria

Gashaka -Gumti national park is the largest forest reserve in Nigeria and a crucial biodiversity hotspot, providing a habitat for some of Africa's endemic endangered plants and animals. Illegal logging, overgrazing, bush burning, farming and hunting are major threats to the wildlife and ecosystems. While there are efforts to tackle these challenges, there is a lack of baseline data for decision making. This project will provide palaeoecological data to supply information on past vegetation, climate and land use. In addition, the data will also provide a better understanding of the impact of European colonisation. The findings from Dr Matthew Adeleye, Cambridge University and Dr Peter Adeonipekun, University of Lagos, will inform

engagement with park managers and the park management framework, informing habitat preservation and restoration decisions.

Faith-based and off-grid: How do monastic-missionary communities power healthcare services in rural Tanzania?

There is growing interest in the impact of off-grid technologies in bringing electricity to remote areas not reached by state grids. Off-grid technologies encompass the ways that power can be generated and managed independently of a centralised grid and are particularly relevant in Africa, where nearly half of the population does not have access to reliable electricity, representing more than 80% of the global electricity access gap. Micro-grids often use renewable energy sources such as solar, wind or micro-hydro systems coupled with storage systems. Religious communities in Tanzania are important players in providing health care with mission hospitals and clinics largely serving rural areas. Today in Tanzania, almost half of hospital facilities are owned by Faith Based Organisations. Due to their power needs, they have been important institutions in rural electrification and provide an interesting precedent for commercialised, decentralised off-grid technologies. While religious organisations have had a dominant presence in off-grid electrification, the current interest in off-grid provisioning has largely ignored their historical and current role. Visiting monastic-missionary religious communities and their health care facilities, Dr Michael Degani, Cambridge University, and Dr Vendelin Simon, University of Dar Es Salaam, are examining the factors that shape adoption of particular energy technologies and how religious institutions have transitioned between and combined different energy technologies. They will also investigate how the presence or absence of reliable power shape health care.



Above: Professor Vendelin Simon, Sister Ludovica Savero of the Franciscan Sisters of Charity of Mahenge and Dr Michael Degani visit the Ifumbo Hydropower station in Mbingu, Tanzania, where Sister Ludovica is Head Engineer. The 800 kilowatt station powers the Sisters' Laverna Convent as well as their community health and education services for surrounding villages.

Assessing biodiversity and ecosystem health of critical aquatic systems in Côte d'Ivoire.

Dr Nigel Taylor, Cambridge University and Dr Tanoh Kamelan, University of Felix Houphouët-Boigny, Côte d'Ivoire, are undertaking a project developed from an initial scoping visit in March 2024 to identify the key research questions for aquatic ecosystems in Côte d'Ivoire. They identified major knowledge gaps in aquatic biodiversity and in particular for the wetlands of the urban Banco National Park. This information could strengthen the case for continued conservation of Banco and the monitoring of its health. The project will enable the first map of the wetlands in the park in addition to characterising the biodiversity of the wetlands and water quality. They will also monitor water quality of the Lower Bandama River, a Ramsar site (wetland sites designated as of international importance), and the only freshwater key biodiversity hotspot area in Côte d'Ivoire, located within the West African Biodiversity hotspot. They will compare the current situation to data collected in 2019-20 to provide an update on ecosystem health. The Lower Bandama faces many threats including pollutants from agriculture, mining and illegal gold panning. The research could be used to develop a pioneering long-term monitoring project in the Lower Bandama, a first for monitoring freshwater biodiversity in West Africa.



Above: Kassoum Ouattara, PhD Student, Université Félix Houphouët-Boigny, assessing Biodiversity in the Banco National Park.

Anticancer potential of Ghanaian medicinal plants against rare cancers

Many of the current cancer drugs are derived from plants or have natural products that have served as model molecules for drug synthesis. Ghanaian plants offer a largely unexplored source of new cancer drugs. Dr Mary Anti Chama from the University of Ghana, Legon, a



Above: Dr Mary Anti Chama in her laboratory at the University of Ghana

leading expert in chemicals produced by plants and Professor Melinda Duer, University of Cambridge, will screen medicinal plants for their anticancer agents for rarer cancers such as pancreatic cancer and glioblastoma which have very low survival rates. They are looking not only at the plant material's direct effect on cancer cells but also at how these materials can modify the extracellular matrix around the cancer cells. They will focus on plants that have known anti-cancer properties but have not been explored well in terms of the chemicals that they produce.

Landslide detection and multi-hazard risk management in the Rwenzori Mountains

Due to the growing population and the exacerbation of geo-hydrological hazards arising from land use and climate change, landslides and floods are increasingly frequent, especially in the densely populated Rwenzori Mountains of Uganda. The research project led by Dr Maximillian Van Wyk de Vries, University of Cambridge, and Dr John Sekajugo, Mountains of the Moon University, Uganda, aims to produce automated landslide detection, using remote sensing techniques, rainfall monitoring and the participation of citizen scientists. This will serve as the foundation for early warning systems and the development of risk reduction strategies based on increased data availability and resilience in the region. Dr Van Wyk de Vries has extensive remote sensing expertise in mountain ranges around the world while Dr Sekajugo brings in-depth understanding of local landscapes and processes. The project has significant capacity development goals including support to the development of a new master's programme at the Mountains of the Moon University in disaster risk management.



Above: Red cross rescuers attend a landslide following heavy rain in the Rwenzori mountains in Uganda in 2022 where 16 people died.

ASCU Postgraduate Research Symposium

On alternate years, when the Cambridge-Africa Day does not take place, we hold a research symposium for African Postgraduate researchers in Cambridge. On the 30th June, one of the hottest days of the year, we gathered at Hughes Hall, Cambridge, to celebrate the wonderful research being undertaken by African postgraduate scholars. This event was organised by Cambridge-Africa and the African Society of Cambridge University (ASCU).



Above: Organising Committee of the research Symposium from Cambridge-Africa and ASCU

We had a fantastic response to the call for abstracts to present research and flash talks. With the advent of the Mastercard Foundation Scholars programme, the number of African postgraduate scholars in Cambridge has increased considerably.

Right: PhD Scholar Jesse Rope presents his research on malaria



The symposium showcased African postgraduate research at Cambridge through an enriching ASCU-Cambridge-Africa collaboration."

Samuel Agyapong, Chair of ASCU

In addition to the wonderful scholars' presentations, we had two keynote speakers. Dr ThankGod Ebenezer, who after completing his PhD at Cambridge University, now works at the European Bioinformatics Institute as the Global Engagement Manager, presented on the African BioGenome Project that he co-chairs. Our second keynote speaker, Dr Siyabonga Njica, a historian at Cambridge University, spoke about Southern African intellectual histories and black transnationalism in academia between Southern Africa and the UK in the twentieth century. Scholars also presented on social enterprises they had started including a microgrids initiative to provide electricity to rural DR Congo and a kangaroo care scheme for premature infants operating in Kenya.



Above: Marie-Ange Camara sang a medley of songs from across Africa accompanied by Yaw Ansong

The day was enriched with poetry and music performances from talented scholars. A full account of the event can be found on the Cambridge-Africa website's Blogs page <https://www.cambridge-africa.cam.ac.uk/cambridge-africa-updates/a-wonderful-research-filled-day-with-entertaining-extras/>

Amit Bhasin Prize for an Outstanding African Scholar in Cambridge

We had many excellent nominations for this prize and so selecting one prize winner was not easy. The 2025 Prize was awarded to PhD scholar Abii-Tah Bih. The prize was presented at the close of the Postgraduate Research Symposium by the Pro-Vice Chancellor for Research, Professor Sir John Aston.



Above: Abii-Tah Bih receiving the Dr Amit Bhasin Award

Abii-Tah is undertaking research on the neglected anglophone conflict in Cameroon which has resulted in the forcible displacement of over 765,000 persons and 2.2 million Cameroonians are now in need of urgent humanitarian assistance. Her research focuses on the transnational interactions between internally displaced persons, refugees and the diaspora. She has founded the Faces of Audacity, a NGO partnering with internally displaced persons and refugee-led institutions, to assist with migration challenges. This organisation has assisted single mothers with grants for small businesses, provided financial and nutritional support for refugees and run a back to school campaign, as many children have missed out on school due to the conflict.

Other activities

a. Careers in focus

Two informal sessions were held for African scholars focused on entering the world of work, post studies. The first was with Nigerian entrepreneur Ayobami Oyaleke, the founder of Mainstack, a fintech platform using AI to streamline payment for businesses. The second was with Emelia Allan, the director of child protection for UNICEF in Zambia who has had long and varied experience working in government and with NGOs. Both sessions included a lively question and answer session as well as a presentation. Students noted that they were able to learn a lot from the experience of the speakers.

b. Visit from Ugandan Christian University

Cambridge-Africa and the Strategic Partnership Office hosted a week-long visit from Uganda Christian University (UCU) senior leaders, Professor Aaron Mushengyezi (Vice-Chancellor) and Dr John Kitayimbwa (Deputy Vice-Chancellor). UCU aims to expand its postgraduate programmes and strengthen research through collaboration with Cambridge. Both visitors are Cambridge-Africa alumni. They were joined by Professor Angella Napakol, Director of Academic Affairs, UCU. We look forward to seeing UCU's progress as it develops into a leading research university in Uganda.

c. Cancer collaborations

Cambridge-Africa supports partnerships between the University of Cambridge, Addenbrooke's Hospital, and the Uganda Cancer Institute (UCI), which serves patients across East Africa. A new cancer hospital and research institute are being built in Kampala. This year's activities included several research collaborations, a Summer School on cancer immunology and bioinformatics, and medical electives in Cambridge for two Ugandan students aspiring to careers in oncology.

d. Lung Health

Cambridge-Africa continues to support the Pan African Thoracic Society's MECOR programme, which trains African health professionals in respiratory research. The week-long course runs at three levels, from basic to advanced research skills. Cambridge-Africa helps organise the course, contributes faculty expertise, and promotes funding opportunities, with support from Professor Kevin Mortimer, an affiliate in the Department of Pathology and long-term champion of global lung health.



Left: Postgraduate students with Nigerian entrepreneur Ayobami Oyaleke, the founder of Mainstack.



Right: PATS MECOR participants, Kenya, September 2024

A linked initiative was the production and publication of a research report investigating the potential for electrification of motor bike taxis to reduce air pollution in Kampala, by Dr Gabriel Okello and Dr Lambed Tatah. This work was funded through Cambridge-Africa and the Derril Allat Foundation.

This Annual report provides an overview of our activities over the past year but throughout the year you can engage with us through our newsletters and our website. Our newsletters provide up to date information on our activities and opportunities. You can subscribe to these via the home page of the Cambridge-Africa website. We have an active website where we publish blogs on activities related to the Programme as well as promoting funding opportunities and events in Cambridge linked to Africa. The Cambridge-Africa Programme can be contacted at enquiries@cambridge-africa.cam.ac.uk

Members of the Cambridge-Africa Team

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Cambridge-Africa Director

Corinna Alberg

Cambridge-Africa Programme Manager

Parinaz Hariri

Senior Research Co-ordinator, Mastercard Foundation

Adeniyi Emmanuel

Cambridge-Africa ALBORADA Research Fund Co-ordinator

We thank the members of the Cambridge-Africa Strategic Advisory Group (CASAG) for their support and input over the year.

CASAG Membership 2024-5

Professor James Wood (Chair)

Corinna Alberg (Secretary)

Annie Nield

Professor Tolullah Oni

Professor Stephen Bentley

Dr Rosalind Parkes-Ratanshi

Chonzo Chiyumba

Dr Sura Qadri

Dr Devon Curtis

Professor Julian Rayner

Professor David Dunne

Professor Pauline Rose

Professor Simon Godsill

Renata Schaeffer

Dr Oumie Kuyateh (Sanger Institute)

Professor Caroline Trotter

Professor Adrian Liston

Professor Suzanne Turner

Professor Anil Madhavapeddy

Dr Maja Wallberg

Dr Tabitha Mwangi

Professor Andrew Wheatley