African SWIFT

African Science for Weather Information and Forecasting Techniques







PROJECT STAFF:

- 1. Programme Science Director
- 2. Researcher: Weather and Climate Services
- 3. Researcher: Satellite Remote Sensing for Weather Forecasting and Sub-Seasonal to Seasonal Weather Predictions











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A. BACKGROUND

The GCRF African-SWIFT consortium, led by the National Centre for Atmospheric Science (NCAS), builds upon existing partnerships between forecasting centres and universities in four African partner countries – Senegal, Ghana, Nigeria and Kenya – bringing together 5 UK partners (NCAS, University of Leeds, University of Reading, CEH, UK Met Office), 10 African Partners (ACMAD, ICPAC, ANACIM, UCAD, GMet, KNUST, NiMet, FUTA, KMet and University of Nairobi) and the UN World Meteorological Organisation (WMO).

Over the 4 year programme, the team of 25 UK and 45 African atmospheric scientists, social scientists and operational forecasters will undertake fundamental scientific research into the physics of tropical weather systems; evaluation and presentation of complex model and satellite data; and communication and exploitation of forecasts.

The GCRF African-SWIFT team will work with forecast users across sectors from aviation to agriculture, energy, water and emergency response to understand how to tailor the provision and delivery of weather forecasts and to ensure improved response to high-impact events (e.g. onset of rains, heat-waves, dry spells, strong winds); rapid emergency response to extreme events, such as urban flooding and prolonged droughts; and increased resilience, through integration of weather prediction into strategies for response to climate change.

GCRF-SWIFT will:

- Make fundamental research advances to significantly improve weather forecasts in Africa, and the tropics more generally, from the hourly to the seasonal timescale.
- Build the operational capability of the African forecast agencies; deliver state-of-the-art forecasting tools; and improve links and communication with forecast users.
- Assist African partners in developing capacity for sustained training of forecasters, in partnership with African academic institutions and international agencies to yield ongoing forecasting improvements in the coming decades
- Ensure results are translatable beyond the partner countries to other nations of Africa and the developing world more widely.
- Deliver an impact felt by many millions of ordinary African people, and by large public and private-organisations across sectors from aviation to agriculture, energy, water and emergency response.

Under the African SWIFT Project, ACMAD is now recruiting various experts under the overall supervision of the Director General.











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- 2. Research Scientist: Weather and Climate Services
- 3. Research Scientist: Satellite Remote Sensing for Weather Forecasting and Sub-Seasonal to Seasonal Weather Predictions

B. VACANCIES

THE DEADLINE FOR ALL APPLICATIONS BELOW IS FRIDAY 20THAPRIL 2018

1. POSITION: PROGRAMME SCIENCE DIRECTOR

Duties and Responsibilities

Under the direct supervision of the Director General, the incumbent will be responsible for the efficient and effective coordination and implementation of the Science for Weather Information and Forecasting Techniques (SWIFT) project and the establishment of the ACMAD Research and Development Department. She/he will liaise with the University of Leeds team in the UK and will present SWIFT at various forums on international, continental and national level and will organize and/or chair various meetings within the African SWIFT project. She/he will also ensure the proper execution of the research activities of the project, both in respect of the ACMAD component as well as the other SWIFT partners in the Project. As part of the Operational Group of the SWIFT management team, working with the Principal Investigator and Programme Manager who are based at the UK National Centre for Atmospheric Science (NCAS), the Science Director will oversee the quality and timeliness of delivery of outputs within the given financial allocations and provide clear work plans consistent with the annual objectives and milestones to dedicated staff and institutional partners.

He/she will perform the following duties:

- Managing scientific coordination within the African groups
- Leadership of the Monitoring and Evaluation Group (MELG)
- Leadership of the SWIFT activities in Operational Training and University Programmes.
- Lead on providing sound scientific and technical guidance to the Project Team throughout the project lifecycle;
- Provide effective leadership, strategic direction and attainment of performance metrics for the project management delivery, resource management and quality management;
- Oversee the synthesis of different weather and climate services to user needs and their dissemination to different user communities at regional and continental levels;
- Lead on the communication with relevant national or international institutions for establishment of partnerships with ACMAD for definition, generation, delivery of meteorological products and capacity development for production, interpretation and use of meteorological information; Linkage with the Satellite and Weather Information for Disaster Resilience in Africa (SAWIDRA).
- Liaise with other international partners in order to coordinate external contribution to the SWIFT project (e.g. WMO, NWP SAF, etc.)
- Liaise with the National Centre for Atmospheric Science and the University of Leeds on financial and contractual issues:











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- Contribution to the leadership of project meetings, workshops, training events and testbeds
- Developing partnerships and helping in coordinating the SWIFT network
- Supporting Impact; Impact tracking for African weather forecasting
- Ensure and supervise the effective, efficient and relevant production and dissemination of required project outputs;
- Assisting the Programme Manager for the on-time, on-budget and within-scope execution of the SWIFT project;
- Assisting the Programme Manager in planning, organizing, leading and controling the project during its full lifecycle;
- Assisting the Programme Manager in defining and clarifying the project scope, developing the project plan, developing the project schedule and developing policies and procedures to support the achievement of the SWIFT project objectives;
- Helping the Programme Manager to determine the organizational structure of the project team, identify roles and positions, identify services to be provided by third parties;
- Helping the Programme manager to provide executive visibility to project status, issues, risks, costs Key Performance Indicators (KPI) progress;
- Helping to ensure that required project reports and other deliverables are prepared and submitted in a timely and comprehensive manner to the appropriate stakeholder;
- Execute any other duties as may be assigned in the framework of ACMAD activities.

Qualifications

Requirements

- The candidate should be a competent, motivated person, who combines high-level scientific experience with excellent management and leadership skills and the ability of integrating and synthesising different types of information and to communicate this to different panels of users;
- High professional records in areas associated with weather forecasting or seasonal prediction.
- Demonstrated experience with result-based management and evaluation methodologies including the experience in applying SMART indicators.
- Ability and experience to lead multi-disciplinary and national teams, and deliver quality reports within the given time:
- Ability to design work plans and methodologies and expected results in regard to the available time and other resources within a given project framework;
- Demonstrated record of interdisciplinary collaboration, partnership and team building and the desire to work in a collaborative environment.
- Competence in networking and negotiation will be an advantage;
- Good records of peer-reviewed publications or previous involvement in peer-reviewing processes and involvement into research of intergovernmental research panels will be an advantage;
- She/he should have an excellent ability of project cycle management and development. High competence in communicating with policy and decision makers at different levels will be advantage;











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Applications for Development

Education

 PhD, in meteorology or related sciences with a focus on meteorology, with particular experience in Weather forecasting or Seasonal prediction.

Experience

- At least 5 years of senior level management and 2 years of Project Management experience.
- Proven experience in weather forecasting or seasonal prediction, or meteorology related experience.
- Experience working in a multi-disciplinary team
- Experience in a National Meteorological and Hydrological Service or related International institution
- Experience working on UK funded projects will be an advantage.

Languages

• Excellent knowledge of English or French and a good working knowledge of the other language are required.

Location

- Niamey, Niger
- Missions in Africa

Contract duration

• 3 years

Probation period

3 months

Salary

£37,000 GBP per annum. Expenses will be paid for travel required as part of the project. In addition, there will be an international and African conference attendance allowance.

How to Apply

Interested candidates who meet the above criteria should submit

- An application letter
- An updated CV
- Contacts of three referees.

Women are explicitly encouraged to apply.











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The application can be addressed to:

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- <u>dgacmad@acmad.org</u>, and <u>bllamptey@gmail.com</u> Or
- Fax number: + 227 20723627

2. POSITION: RESEARCH SCIENTIST: WEATHER AND CLIMATE SERVICES

Duties and Responsibilities

Under the immediate supervision of the Programme Science Director of the Science for Weather Information and Forecasting Techniques (SWIFT) Programme and the overall supervision of the Director General of ACMAD, he/she will be responsible for environmental social science research activities and some of the training elements of the SWIFT Programme. The Researcher will help in the identification of user needs, co-production and communication for climate and weather services focusing on both West Africa and Kenya. The Researcher will be based in the new to be established Research and Development Department of ACMAD, but will work in close collaboration with researchers at the University of Leeds, UK and at Kwame Nkrumah University of Science and Technology, Ghana, as well as SWIFT partners in Senegal, Nigeria, Ghana and Kenya. A key part of the role will involve taking the lead in planning and organising participatory workshops. In line with the above, the incumbent will:

- Work with the <u>GCRF African SWIFT</u> project team to ensure that outputs for Work Package 1: user needs, co-production and communication are delivered.
- Share and report on findings across a large consortium, with members from different countries and disciplines.
- Work with partner organisations in Senegal, Nigeria, Ghana and Kenya to map the current provider and user landscape for weather and climate information services.
- Conduct interviews with users (and potential users) of climate and weather services in partner countries.
- Lead the planning and organisation of participatory stakeholder workshops.
- Work with providers and users of weather information in partner countries to identify more effective strategies for forecast communication.
- Feedback views of user community to GCRF African-SWIFT consortium members.
- Contribute to setting the direction of the research project and team.
- Evaluate methods and techniques used and results obtained by other researchers and relate such evaluations appropriately to your own work.
- Ensure the production and presentation of information at conferences.
- Contribute to peer-reviewed publications.
- Embed research results into operational practice documents to promote the training of African scientists and strengthen the capabilities of the national meteorological services.
- Lead on the organisation and delivery of some of the SWIFT African meteorological practice and testbed training events.











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- Assist the Program Science Director and Heads of Departments in ACMAD in the monitoring of trainees under Weather related, Climate related, meteorological applications, training and strengthening capacity programme.
- Perform any duty that may be assigned to him or her in line with the activities and operations of ACMAD.

Qualifications/Experience

- A Minimum working experience of 5 years in a research/operational national, regional or international center.
- Technical competence in the field of environmental social science international development, disaster risk management, climate and weather services, risk communication or a related discipline.
- Strong background in researching user needs for weather and/or climate services, risk communication, or a related discipline.
- Excellent qualitative skills (document analysis, interviews and participatory workshops).
- Good quantitative skills (survey design and analysis).
- A strong track record of producing written outputs, e.g. research papers or reports.

Education

The Candidate must have a PhD in environmental social science, meteorology or related field from a recognized university or Meteorological School or Institute.

Other Requirements

- The ability to travel to partner countries in Africa throughout the project.
- Knowledge of general and tropical meteorology.
- Good research skills and aptitude for development oriented applications.
- Strong interests in transition from research to applications.
- Excellent written and verbal communication skills, including presentation skills and the ability to communicate effectively with a wide range of stakeholders.
- Interest in mainstreaming weather and climate information into the development agenda.
- Good computing skills.
- Good working capability, within international context, easy to relate to, dynamic and meticulous, responsible and high level of integrity.
- Aptitude to foresee a continental vision of ACMAD in meteorological research and applications.
- Aptitude to cope with rapidly evolving technologies.
- Good skills in French or English and good knowledge of the other working language. Working language of the center is both English and French.

Languages

• Fluency in English or French is required and working knowledge of the other language would be an advantage.











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Location

- Niamey, Niger
- Mission in Africa

Contract duration

3 years

Probation period

3 months

Salary

£26,500 GBP per annum. Expenses will be paid for travel required as part of the project. In addition, there will be an international and African conference attendance allowance.

How to Apply

Interested candidates who meet the above criteria should submit

- An application letter
- An updated CV
- Contacts of three referees.

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3. POSITION: RESEARCH SCIENTIST: SATELLITE REMOTE SENSING FOR WEATHER FORECASTING AND SUB-SEASONAL TO SEASONAL WEATHER PREDICTIONS

Duties and Responsibilities

Under the immediate supervision of the Programme Science Director of the Science for Weather Information and Forecasting Techniques (SWIFT) Programme and the overall supervision of the Director General of ACMAD, he/she will be responsible for: the evaluation and use of satellite data for weather prediction; development of sub-seasonal (S2S) forecasts; and some of the training elements of the SWIFT Programme. The Researcher will be based in the new to be established Research and Development Department of ACMAD. In line with the above, the incumbent will:

- Interpret appropriate satellite data in order to determine the physical properties of deep tropical convection.
- Generate and pursue original research ideas in using instruments on satellites to understand convection.
- Implement the use of EUMETSAT tools in ACMAD.
- Evaluate the current ACMAD seasonal forecasting system.
- Suggest improvements to the ACMAD seasonal prediction system.
- Conduct meteorological research.
- Conduct research at the sub-seasonal time scales.
- Propose techniques for operationalizing sub-seasonal prediction.
- Prepare technical and synthesis document dedicated to regional centres that have potential to improve subseasonal to seasonal forecast at national and regional level.
- Ensure the production and presentation of meteorological information/products at conferences.
- Contribute to studies and the evaluation of numerical models to improve forecasting method at ACMAD.
- Work with providers and users of weather information in partner countries to transfer knowledge of satellite and S2S information.
- Design methods for the evaluation and verification of meteorological forecasting services and products generated by ACMAD for the use by regional centers and regional or international institutions with continental or regional mandates.
- Generating and pursuing original research ideas in the appropriate subject area.
- Develop research objectives and proposals and contributing to setting the direction of the research project and team.
- Evaluate methods and techniques used and results obtained by other researchers and to relate such evaluations appropriately to your own work.
- Ensure the production and presentation of information at conferences.
- Engage in peer-reviewed publications.
- Embed research results into operational practice documents to promote the training of African scientists and strengthen the capabilities of national meteorological services.
- Write training materials and run workshops for users of nowcasting and S2S tools.
- Lead on the organisation and delivery of some of the SWIFT African meteorological practice and testbed training events.
- Assist the Program Science Director and Heads of Departments in ACMAD in the monitoring of trainees under Weather related, Climate related, meteorological applications training and strengthening capacity programme.











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• Perform any duty that may be assigned to him or her in line with the activities and operations of ACMAD.

Qualifications/Experience

- A Minimum working experience of 5 years in a research/operational national, regional or international center.
- Scientific and technical competence in the field of meteorological forecast applications.
- Proven competency in the use of HPC in a national, regional or international center.
- Technical competency in Linux operating system, computer programming (FORTRAN, C++, Python, etc.), post processing and visualization tools (NCL, Python, R, or equivalent).
- A strong track record of producing written outputs, e.g. research papers or reports.

Education

The Candidate must have a PhD in Meteorology or related field from recognized university or Meteorological School or Institute.

Other Requirements

- Good background in general and tropical meteorology.
- Good research skills and aptitude for development oriented applications.
- Strong interests in transition from research to applications.
- Interest in mainstreaming weather and climate information into development agenda
- Good computing skills.
- Good working capability, within international context, easy to relate to, dynamic and meticulous, responsible and high level of integrity.
- Aptitude to foresee a continental vision of ACMAD in meteorological research and applications.
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Languages

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Location

- Niamey, Niger
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Contract duration

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