## *Met Office*

### **Projects in Africa**

#### Why Africa needs improved climate information

Rapid population growth and development in Sub-Saharan Africa are increasing the region's vulnerability to climate variability and change. Weather extremes have the capacity to impact on people's lives, threatening infrastructure, human health, water supplies and food security. Managing these risks requires high-quality, accessible weather and climate information to enable decision-making that will help mitigate the impacts of weather and climate shocks.

The Met Office, with its world class weather and climate expertise, is working in partnership to help deliver such information, transforming science to services that make a difference to people's lives. The Met Office is collaborating on a number of international projects across Africa, working closely with stakeholders to design services to build resilience to weather and climate extremes.





#### Improving Model Processes for African Climate (IMPALA)

The Met Office is leading IMPALA, part of the UK Aid funded programme Future Climate For Africa (FCFA). IMPALA aims to deliver a step change in climate prediction for Africa, enabling decisionmakers to better tackle risks associated with health, water and agriculture. Using its scientific research and modelling expertise, the Met Office has developed and run a pan-African very high resolution model down to a scale of 4.5km which explicitly represents convective storms and we believe will better capture extreme events at local scale.

IMPALA is feeding this modelling and new understanding into regional projects across Africa to aid planning, including resilience to extreme events in African cities, water resources in East Africa and changes in the West Africa monsoon. In all these areas, the Met Office is applying its science to aid solutions on the ground.





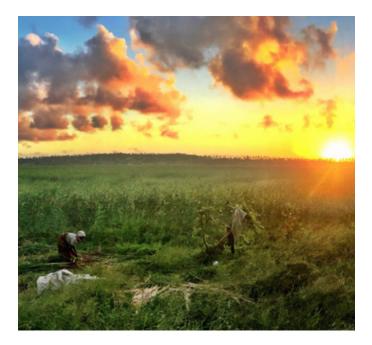


#### Weather & Climate Information Services for Africa (WISER)

The Met Office is helping deliver WISER, which will help at least 24 million people across Africa to be more resilient to natural hazards and climate change. The Met Office's East Africa component of WISER is being delivered through a programme of projects. These include national projects delivered in partnership with the national meteorological services of Kenya, Rwanda, Tanzania and Uganda designed to strengthen weather and climate services in those countries. In addition, regional projects include support to ICPAC (IGAD (Intergovernmental Authority on Development) Climate Prediction Applications Centre), developing an early warning service for the Lake Victoria Basin, and strengthening the capacity of weather and climate media professionals. Other projects are using aircraft meteorological data, addressing vulnerability to extreme weather and climate impacts in informal urban settlements, and using co-production to improve the generation and use of weather and climate information. An additional project in the Sahel also aims to integrate climate information into social protection decision making so that it can become responsive to climate shocks.

# Improving meteorological and climate services in Mozambique

The Met Office is leading a consortium of partners in a project to support the Mozambique National Institute of Meteorology (INAM) in improving meteorological services in the country. The project is part of ongoing funding by the Nordic Development Fund under a wider World Bank initiative. Project partners include: MET Norway; Deltares (Netherlands); and CONSULTEC (Mozambique independent agency). The partnership will support INAM to produce a resilient and adaptive plan for their own development and modernisation, and will include evaluating impact-based forecast and risk-based warning services, and assessing the capacity of weather observation networks. The Met Office is also providing climate projections up to 2050 and 2080, and in collaboration with the World Food Programme will develop understanding of the impact of future climate on food security in Mozambique.





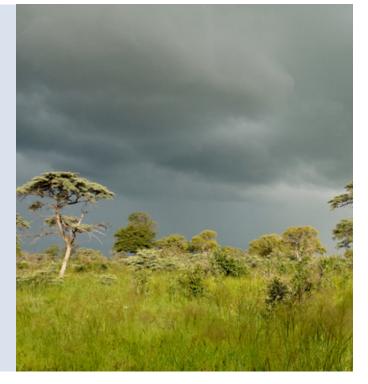
# Supporting UN objectives to reduce poverty and build resilience

The Met Office's international activities help to support United Nations development objectives. Most notable among these are the UN Sustainable Development Goals (SDGs), the Sendai Framework for Disaster Risk Reduction and the UNFCCC COP 21 agreement reached in Paris in 2015. Considering these activities together rather than as separate strands, and recognising the value of working in partnership with others, the Met Office is using its expertise to help deliver weather and climate services to meet the UN targets.

## Improving regional accuracy of short-range weather forecasts

As part of the Weather and Climate Science for Service Partnership (WCSSP) South Africa supported by the Newton Fund, the South African Weather Service is working to upgrade and improve the quality of its weather forecasting activities and has implemented high resolution numerical weather prediction (NWP) models. This has enabled more detailed and regionally accurate short-range weather forecasts to be developed and has led to further NWP model improvements in both South Africa and the UK. This development has led to improvements in the quality and accuracy of weather guidance provided to government, businesses and communities within South Africa.





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