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Weather and Climate Information Services (WISER): East Africa 2015-21

The Weather and Climate Information Services (WISER) for Africa programme's aim was to deliver transformational change in the quality, accessibility and use of weather and climate information services at all levels of decision making to support sustainable development in Africa.

The programme set out in East Africa, designed to develop and test an approach to measuring changes in weather and climate resilience and an approach to quantify value of avoided losses, as well as to pilot new and innovative project approaches and partnerships.

WISER 2015-21 focused primarily on East Africa. It also included activity in complex operating environments including the Sahel, Somalia, and South Sudan.

Delivery ranged from focused national projects to large, complex regional projects with delivery through a range of partners, such as National Meteorological and Hydrological Services (NMHSs), International NGOs and European and African organisations, each with differing strengths and areas of expertise.



The WISER programme focus - 2015-21

Five quick-start projects were piloted under Phase 1 from 2015 to 2017, aimed at providing a proof of concept for demand of weather and climate services, assess project options, and support the design of a larger scale Phase 2. These five projects were delivered in Kenya and Tanzania at a national level and at a regional level across East Africa.

A further 12 projects were then delivered under Phase 2, from 2017 to the end of 2021. These consisted of a combination of regional, multi-country and national projects, underpinned by a focus on user engagement and improved decision making. Building on the outcomes of Phase 1, these projects continued to improve on successes and expand to include other East and West Africa countries including Uganda, Somalia, South Sudan, Rwanda, and the Sahel. Phase 2 supported the development of a range of weather and climate services and ensured that regional information and products were contextualised for national and sub-national use in line with the needs of a specific country.

Programme aims included:

- Focus on service delivery, directed by user needs, which support poverty reduction and development
- Work holistically to inform climate risk decision making bringing together research, policy and practice
- Work with regional, national or sub-national plans, which have involved users
- Work through existing and mandated organisations and channels where possible and appropriate

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How is WISER funded?

WISER has been funded by UK Aid from the Foreign, Commonwealth and Development Office of the UK Government. In 2015-21 the programme delivered value for money by working in partnership with national and regional organisations to deliver projects that focus on co-production and national capacity development to ensure sustainable improvements in the access and use of weather and climate information in Africa.

Co-producing services with end users

WISER used a co-production approach, where partners bring together the producers of weather and climate information with end users to co-develop and co-create weather and climate information services.

Co-production is an essential ingredient in bridging the gap between the producers and users of weather information. This approach to WISER projects met the needs of end users, ranging from individuals in informal settlements, farmers, fisherfolk and journalists to governments, the disaster risk sector, Non-Governmental Organisations and vital businesses such as energy providers and aviation services.

In addition, some WISER projects worked closely with NMHSs to deliver improved training to over 6,000 people, more effective weather and climate data capability, and early warning services.

As a result, WISER projects were able to deliver vital outcomes that increased the resilience of 8.2 million people, having supported over 3.3 million households to have better access to new or improved weather and climate information services.



Key Programme Achievements

£207.5m
of avoided losses supported in East Africa due to the use of climate information

3.3m
households can access new or improved Weather and Climate Information Services

8.2m
people's resilience improved

£28.8m
of additional funding attracted for improved generation, uptake and use of Weather and Climate Information Services

65
joint analysis and learning initiatives which support an enabling environment for the delivery of Weather and Climate Information Services

482,219
households supported to use new or improved Weather and Climate Information Services to inform decision making

7
National Meteorological and Hydrological Services and Regional Climate Centres with new and upgraded technology and hardware for production of climate services

53
processes facilitated, with coproduction underpinning WISER's approach

146
new or improved coproduced climate service products produced

94
research or knowledge management outputs produced

33
forums organised from global to national level, strengthening networks and partnerships

6,000+
people trained, improving their knowledge and skills to produce, access and use co-produced climate services



User Impacts

“ I can protect myself, family, friends, belongings and business to reduce damage and wastage to stock, conduct house repairs, clean drains and plan safe travel arrangements. ”

Agnella
Shopkeeper (Tanzania)

“ I can take action to protect myself and my personal and school belongings such as books. I can also share this information with my family which will help us protect our house and belongings within it. ”

Peter
School Student (Tanzania)



“ I can know the best time to prepare my land and plant crops, harvest or prepare for crop shortage and take produce to market. Information I receive helps me determine which crops to plan, and anticipate prevalence of crop pests and diseases. ”

Kabaale
Arable and livestock farmer (Central Kenya)



The results presented in this graphic are from a range of data collection and analysis methods that reflect the requirements of the programme.



WISER Projects

2015

..... PHASE 1

1. Modernisation of the Institute of Meteorological Training and Research, Kenya (IMTR)

Purpose: Increase resilience to climate change and high impact weather through improved training of experts.

Key outcome: Delivery of pilot Basic Instruction Package for Meteorologists (BIP-M) climatology training course using blended learning techniques.

[Find out more](#)

2. Enhancing National Climate Services, East Africa (ENACTS)

Purpose: Transform local, national and regional climate-sensitive decisions through widespread uptake of relevant, locally enhanced climate information.

Key outcome: Buy-in and engagement from regional and national organisations, building capacity within the user community and analysing previous responses to climate events such as the 2015 El Nino.

[Find out more](#)

3. Multi-hazard early warning service, Tanzania (MHEWS)

Purpose: Enhance capacity of Tanzania Meteorological Agency to reduce impacts of extreme weather on coastal regions.

Key outcome: Introduction of the impact-based multi-hazard early warning concept, co-production of the early warning products and Standard Operating Procedures.

[Find out more](#)

5. Strengthening Climate Information Partnerships, East Africa (SCIEPA)

Purpose: Strengthen climate partnerships to increase capacity for early warning services and effective responses to climate.

Key outcome: Scientists in East Africa are now substantially better equipped to interpret and use dynamical seasonal forecasts, directly benefitting early warning activities in the region such as with the 2016/17 drought.

[Find out more](#)



4. WISER Western Kenya

Purpose: Deliver demand-led services of Kenya Meteorological Department in Kakamega, Siaya, Kisumu and Trans Nzoia to reduce vulnerability, grow economy and decline poverty.

Key outcome: Enabled the Kenya Meteorological Department to improve services at county level and demonstrate the importance and influence of these to national and county governments.

[Find out more](#)

2017

..... PHASE 2

1. Developing Risk Awareness through Joint Action (DARAJA)

Purpose: Co-produce weather and climate information services particularly relevant to urban informal settlement communities in Tanzania and Kenya.

Key outcome: Over 980,000 people with improved access to actionable forecast information.

[Find out more](#)

2. Weather Wise

Purpose: Strengthen capacity of media professionals and technical experts to respond to the climate and weather information needs of audiences.

Key outcome: 124 individuals trained which improves capacity to produce relevant, timely and understandable weather and climate content.

[Find out more](#)

3. Somalia and South Sudan

Purpose: Reduce impact of weather and climate shocks through enhanced provision of weather and climate information services to priority sectors.

Key outcome: 69 organisations using new or improved weather and climate information services, with first nationally led seasonal forecasts produced and National Climate Outlook Forums (NCOFS) held in both countries.

[Find out more](#)



4. Coastal Resilience and Improving Services for Potato Production, Kenya (CRISPP)

Purpose: Co-produce services to deliver transformational change in dissemination and impact of weather and climate information.

Key outcome: Over 300,000 households with improved access to weather and climate services, and 9 new organisations using this information to improve decision making.

[Find out more](#)

WISER Projects

5. High impact Weather Lake System (HIGHWAY)

Purpose: Deliver regular weather forecasts and severe weather warnings for small transport vessels on Lake Victoria.

Key outcome: The marine information in HIGHWAY is avoiding 312 deaths/year.

[Find out more](#)

6. TRANSFORM

Purpose: Offer a novel approach to improving generation and use of user-relevant weather and climate information by enhancing co-production and capacity development.

Key outcome: Produced a number of significant insights and learnings provided in a learning report.

[Find out more](#)

8. Adaptive Social Protection - Information for Enhanced Resilience (ASPIRE)

Purpose: Identify how climate information could inform social protection through facilitation of dialogue between key stakeholders, conducting research, and delivering essential training.

Key outcome: Delivery of introductory training for National Meteorological and Hydrological Services.

[Find out more](#)



7. Aircraft Meteorological Data Relay (AMDAR)

Purpose: Establish and operate a meteorological observing programme making use of the automated reporting from a fleet of aircraft.

Key outcome: Improved data access and use which increased forecast coverage and improved national, regional and global forecast applications.

[Find out more](#)

9. Tanzania National Project

Purpose: Enhance capacity of Tanzania Meteorological Agency (TMA) in provision of climate services for the agriculture, energy, marine transportation, disaster and water sectors.

Key outcome: Improved weather and climate services for 5,664 individuals through increased knowledge and trust in TMA.

[Find out more](#)

10. Iteganyagihe Ryacu, Rwanda

Purpose: Improve and scale up the co-production of climate services for improved climate risk management and an impact based early warning system.

Key outcome: 1.9 million people accessed impact based early warnings and 103,709 households used weather and climate information to make decisions.

[Find out more](#)



[Click here to explore all WISER projects](#)



12. WISER support to ICPAC (W2-SIP)

Purpose: Building on successes of SC�PEA and ENACTS, develop ICPAC capacity to supply effective weather and climate information services, training staff in co-production approaches and making substantial investments in IT facilities.

Key outcome: Improved forecasting for the Greater Horn of Africa, with 92 regional and national organisations given access to climate services.

[Find out more](#)

11. Uganda National Project

Purpose: Improve availability, relevance and use of weather and climate information in 22 targeted districts in Uganda using local languages.

Key outcome: 2.4 million farmers improved their resilience.

[Find out more](#)

WISER Lessons Learned



Co-design during inception

Ring-fence an inception phase of sufficient length to allow the co-design of projects and programmes with stakeholder engagement at all levels.

Develop synergies

Identify regional synergies and design project and programme activities to align with national and regional priorities to increase the likelihood that climate services will be impactful.



Focus on gender and inclusion

Design programmes to be gender-responsive and inclusive by having clear plans to promote equal access and inclusion to co-produced climate services.

Implement immersive co-production

Move from consultative to more immersive co-production to deliver relevant, high-quality services and products while building strong networks and trust.

[Find out more](#)



Develop capacities

Plan to continuously develop capacity throughout implementation to improve and sustain a range of capabilities for all actors involved in the climate service value chain.

Monitor and gather evidence of impact

Co-design and implement mechanisms and strategies as part of the inception phase to support Monitoring, Evaluation and Learning (MEL) throughout implementation.



Consider sustainability

Start planning for sustainability in the inception phase and include in project proposals to ensure that the necessary support is available to facilitate effective transitions, scaling and replication of activities.

“At its heart, WISER has striven to make a difference to millions of people across East Africa”

Kate Ferguson
Programme Manager, WISER Programme



“There is no point investing in technology and science unless you can translate it for those that need it most”

Jane Marriott
British High Commissioner to Kenya



“Community members now feel that forecasts are designed for them”

Sunayana Sen
DARAJA Project Manager, Resurgence



[Click here](#) to read the latest blog posts from across the WISER programme

WISER Success Stories



Translating forecasts into farming

In East Africa, the rainy season dictates farming schedules. By making sure that farmers have access to accurate forecasts – and can understand them – the CRISPP project helped to make farming more successful and efficient.

[Find out more](#)

Building bridges in East Africa

As more and more people live in settlements that are particularly vulnerable to extreme weather, the DARAJA project funded by WISER aimed to mitigate the danger by working closely with communities.

[Find out more](#)



The power of partnership

Initiatives in the WISER HIGHWAY project demonstrate just how effective – and essential – cooperation and partnership can be for providing weather advice for people living near Lake Victoria.

[Find out more](#)



To find out more about the work carried out across all WISER projects, read our case studies featured across project web pages [here](#).

Additional Resources

- [WISER Socio-Economic Benefit report](#)
- [WISER Guides and Training Materials](#)
- [Co-production Policy Brief](#)
- [Gender Policy Brief](#)
- [Funder Policy Brief](#)
- [National Meteorological and Hydrological Services Policy Brief](#)



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Need to contact the WISER team?
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The results presented in this document are from a range of data collection and analysis methods that reflect the requirements of the programme.

