

# Project summary Strengthening Climate Information Partnerships – East Africa (SCIPEA)

### Introduction

The purpose of the SCIPEA project was to strengthen climate partnerships on three levels. Enhancing links and data exchanges between global, regional and national climate organisations was a core part of the project, with the aim of strengthening resources and tools for seasonal forecasts. In addition, the project facilitated the co-development of tailored services with climate information providers and users. The long-term capacity development aims of the project involved working with national meteorological and hydrological services (NMHSs), universities and training centres in the region to strengthen training resources and the capacity for climate service development.

There were a number of partners involved in this project including the Met Office (one of the World Meteorological Organization's designated Global Producing Centres (GPCs) for long range forecasts), the International Research Institute for Climate and Society (IRI), the IGAD (Intergovernmental Authority on Development) Climate Prediction and Applications Centre (ICPAC), and the national meteorological and hydrological services (NMHSs) of Ethiopia (National Meteorological Agency - NMA), Kenya (Kenya Meteorological Department - KMD), Tanzania (Tanzania

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Meteorological Agency - TMA) and Uganda (Uganda National Meteorological Authority - UNMA).

#### Strengthening engagement between climate information providers and users leading to the co-design of prototype climate services

In order to achieve this aim of the project, service development teams (SDTs) were set up for five consortia led by ICPAC, NMA, KMD, TMA and UNMA.

Consortia:

- ICPAC, Network of Climate Journalists of the Greater Horn of Africa (NECJOGHA), the Regional Food Security and Nutrition Working Group (FSNWG), University of Nairobi
- **KMD**, KenGen, Kenya Red Cross Society, Institute for Meteorological Training and Research (IMTR)
- **UNMA**, Ministry of Agriculture Animal Industry and Fisheries (MAAIF), Uganda Ministry of Water & Environment (MWE), National Meteorological Training School-Entebbe (NMTS)
- NMA, National Disaster Risk Management Commission (NDRMC), Ministry of Agriculture and National Resources (MoA&NR), Adama Science and Technology University (ASTU)
- **TMA**, Dar Es Salaam Institute of Technology (DIT), Ministry of Agriculture, Livestock and Fisheries (MALF), Ministry of Energy and Minerals (MEM)

A series of meetings were held by each consortium to develop and refine the user requirements. As a result, the climate information providers have developed prototype climate services (PCSs) to serve these users. In three cases the PCSs had moved to the trial stage by the end of the project:

1. ICPAC rolling forecasts for FSNWG were delivered and used for the 2016 short-rains season. The regular updates and consistency of the 'dry' message is thought to have contributed to earlier action relative to the 2010/11 drought.

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- 2. The need for the earlier issuing of seasonal forecasts was addressed by ICPAC holding the Greater Horn of Africa Climate Outlook Forum (GHACOF) for March-April-May (MAM) 2017 two weeks earlier than the previous year. As a consequence KMD and UNMA were able to issue their national seasonal forecasts 2-3 weeks earlier than in 2016.
- 3. NECJOGHA and ICPAC have piloted a regional climate education and communications service. Workshops for practicing media journalists and communications officers of the NMHSs were held including interactive sessions with climate scientists on climate science basics. A new 'climate cafe' concept was also trialled in Uganda as a platform for journalist training and communication of the forecasts and updates to end users.

## Improved links and data flows between Global Producing Centres, ICPAC and NMHSs to strengthen the quality of climate information services

The improvement of links and data flows between the Global Producing Centres (GPCs), ICPAC and the NMHSs was designed to lead to the evaluation of dynamical climate model seasonal predictions and increased use, together with existing forecasting tools, in the region's seasonal forecasting processes. This objective was achieved through a series of joint training sessions, ongoing reviewing and mentoring of the monthly analysis of GPC forecasts by the GPCs, and the development of a data portal providing access to GPC data.

The training sessions included one month science visits to the Met Office and IRI. The ongoing reviewing and mentoring also aided the use of the GPC forecasts in preparing operational outlooks.

The new data portal was implemented at ICPAC, and mirrored at IRI, giving easy access to forecast and hindcast data from six GPCs along with associated observational data for forecast calibration and validation. It also gives access to

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maprooms for visualisation of the data. Scientists were trained in the use of the portal for data download and visualisation and in use of tools for processing, interpreting, evaluating and using the GPC data in operational seasonal forecasting processes.

## Conclusion

As a result of the SCIPEA project, a cohort of scientists in the East Africa region is now substantially better equipped to interpret and use dynamical seasonal forecasts. There is also greatly improved access to GPC forecasts and other climate data through the new internet portal hosted at ICPAC. With these new skills and improved access to data, the informed use of GPC forecasts in preparation of regional and national outlooks has increased. There is also evidence that the SCIPEA project has benefitted early warning activities in the region with regards to the 2016/17 drought and its impacts.

In order to ensure the sustainability of the work undertaken by the SCIPEA project, a modular training framework has been developed for the region on dynamical seasonal forecasting. Three core components of the curriculum are ready for trial delivery.

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