



## Report: Team Europe South Africa Climate Action Coffees – session 5

**Climate adaptation: climate services with the Department of Forestry, Fisheries and the Environment, the South African Weather Service and the Council for Scientific and Industrial Research, co-hosted with the Government of Flanders**

**Date: 15 April 2021**

**Time: 9.30am to 10.30am (SAST)**



Facilitator: Thrishni Subramoney, Flow Communications

### Presenters:

- Tlou Ramaru, Department of Forestry, Fisheries and the Environment
- Dr Tracey Laban, South African Weather Service
- Brian Mantlana, Council for Scientific and Industrial Research
- Dr Koen Verbist, United Nations Educational, Scientific and Cultural Organization Regional Office for Southern Africa

### Attendees:

- Colleagues from DEFF
- Colleagues from CSIR
- Colleagues from Member states
- Colleagues from EUMETSAT
- Representatives from Trade & Industrial Policy Strategies (TIPS), SAWS and ECMWF

### Topics covered:

#### Why EU Climate Action Coffees?

The purpose of the “Climate Action Coffees” sessions is to build bridges between organisations implementing climate action initiatives in South Africa and the region, and their Team Europe counterparts.

Ariane Labat from the European Union Delegation said the sessions offer an opportunity to exchange ideas, build networks and learn about various programmes – in this case, what measures South Africa is taking regarding climate adaptation.

## **Session format**

The session was an hour long, with presentations by three speakers from South Africa: Tlou Ramaru of the Department of Forestry, Fisheries and the Environment; Dr Tracey Laban of the South African Weather Service (SAWS); and Brian Mantlana of the Council for Scientific and Industrial Research (CSIR). The final presentation by Dr Koen Verbist of the United Nations Educational, Scientific and Cultural Organization (Unesco) was followed by a Q&A segment.

## **Introduction**

Nikolas Bosscher, the deputy general representative of the Government of Flanders, said the objective of this particular session was to provide a snapshot of what is happening in the climate services space, with specific reference to South Africa's National Framework for Climate Services.

While the framework is broad and covers many sectors, he said this was an opportunity to narrow the focus down to specific areas of interest. Last year, South Africa approved its National Climate Change Adaptation Strategy and, in February, the European Union adopted a new climate change adaptation strategy, signalling a stepping up of momentum and action on this front, Bosscher added.

## **Summary of the presentations**

### **Presentation 1: Tlou Ramaru of the Department of Forestry, Fisheries and the Environment**

Ramaru provided an overview of South Africa's National Framework for Climate Services (NFCS). This user-driven and collaborative framework aims to incorporate science-based climate information and predictions into South Africa's climate-change planning, policy and practice, and develop sector-specific products and applications – with the ultimate aim of equipping users to better manage the risks of climate variability and change.

Because South Africa has already been experiencing extreme weather events – from droughts and flooding to heatwaves and severe storms – that are set to worsen with climate change, it is imperative to prepare adequately for this “new normal”.

This means it is critical that accurate climate-related information and forecasting data is available to inform appropriate planning, preparation and action. Climate services therefore need to be put in place for the most vulnerable sectors and communities to mitigate their risk and plan their responses and, ultimately, ameliorate the impact of climate change.

In South Africa, climate services will be provided by government departments and research institutions, as well as the private sector, academia and other groups. Non-governmental organisations that are active on the ground will also be key in helping to reach communities and understand their needs, as will the media. The South African Weather Service has been

identified as the authoritative body to anchor and drive the government's climate services agenda under the NFCS, and to coordinate the various roleplayers.

Key sector-specific and user-driven products and services are being developed and information about climate services will be disseminated via a variety of platforms, including an app and a climate services portal, housing publicly accessible information.

It is hoped that the NFCS will result in better management of risks, and reduce impact and build capacity for vulnerable communities. The government will also be required to take climate information into account when undertaking planning and risk management, or risk regressing when it comes to achieving its development goals, specifically the National Development Plan triple challenge of poverty, inequality and unemployment.

### **Presentation 2: Dr Tracey Laban of the SAWS**

Laban, who is responsible for climate services at the SAWS, spoke about how the service is providing technical leadership when it comes to the NFCS. She said the framework arose against the backdrop of concerns that the Southern African region was regarded as a climate-change hotspot that was warming at twice the rate than the globe as a whole.

The urgency of such a plan was brought to the fore by Cyclone Idai in 2019, which resulted in arguably the worst flooding and humanitarian crisis to hit the region in recent history. More recently, Cyclone Eloise brought heavy rains and flooding. There is clearly an increasing frequency and intensity of such natural hazards in the region, underscoring the need for climate services and coping mechanisms to limit vulnerability and exposure.

The 2020 State of Climate Services Report, prepared by the World Meteorological Organization and partners, highlighted the need for multi-hazard early-warning systems to strengthen nations' resilience to natural disasters. Despite 70% of deaths due to climate change and weather hazards over the past 50 years occurring in the world's poorest nations, adaptation finance makes up only 5% of global climate finance. Many of Africa's observing networks are currently ill-equipped to provide adequate climate-change data.

Since the SAWS was tasked with providing technical leadership to finalise and implement the NFCS in 2018, much progress has been made. Bilateral meetings have been held with stakeholders, cooperation agreements have been signed and the framework has been aligned with the National Climate Change Adaptation Strategy and other policy instruments.

A user interface platform for collaborative engagement has been set up to improve South Africa's climate-related products and services. Here, it is hoped that further dialogues with EU partners can help to bridge the gap between climate service providers and users.

Work has also been done on strengthening the Climate Services Information System, a hub for climate data and information that will also serve as a multi-hazard early warning system (the latter is being funded by the Government of Flanders). A climate services portal has been developed to serve as a central entry point for users.

Bolstering observation and monitoring is also a priority, but effective climate monitoring is in jeopardy because the observation network in the country is in decline. This needs to be addressed, as does establishing an integrated funding system.

Enhancing and developing capacity is another focus area of the NFCS, with calls for a National Climate Centre to play a central role in coordinating climate services. However, this will require substantial investment and the recruitment of scientists, climatologists and other professionals, in addition to infrastructure and equipment.

The National Climate Change Information System may be accessed here:

<https://ccis.environment.gov.za/#/climate-services>

### **Presentation 3: Brian Mantlana of the CSIR**

Mantlana, from the CSIR's climate change team, referred to a collaborative project run jointly by the CSIR, the SAWS and the South African Environmental Observation Network (SAEON) to address climate adaptation. It was important to build capacity, address present and future disaster risk, reduce the country's vulnerability to climate change and build socioeconomic resilience, he said.

The notion of climate change adaptation has traditionally not received as much attention as that of climate change mitigation, although this has improved in recent years. In terms of Paris Agreement reporting, countries have to answer the question: are we really adapting?

At national level, South Africa is highly proactive in the climate space, having published the National Climate Change Adaptation Strategy last year and having developed the National Climate Change Information System (set up by the environment department and SAEON) to track progress in implementing adaptation responses and assessing their effectiveness.

However, we currently have inadequate information at hand to answer whether the country – and the globe – is truly adapting to the realities of climate change, in order to guide decision-making and policymaking. This presents a significant knowledge gap.

The collaboration between the CSIR, the SAWS and SAEON is aimed at supporting the implementation of the National Climate Change Information System, with a focus on water and food security. Here, the dialogues with the EU member states, sharing experiences and learnings, are offering valuable insights into how to adapt to climate change.

Part of this collaboration entails a European Commission-funded pilot project that began in April 2021, in South Africa's Mpumalanga province, and that seeks to gather information on what is working and what is not when it comes to climate change adaptation practices.

### **Presentation 4: Dr Koen Verbist of Unesco**

Verbist, a programme specialist for natural sciences based in Unesco's regional office in Harare, Zimbabwe, spoke about Unesco's contribution to the national frameworks for climate services in Southern Africa.

It does so through a variety of initiatives. One is the Climate Services for Water Management (CliMWaR) project, funded by the Government of Flanders, which aims to provide reliable climate services and forecast droughts and floods at local level.

The African Flood and Drought Monitor, established in 2011, is aimed at strengthening capabilities and providing seasonal forecasts for individual countries by supplying actionable data that can, for example, predict what areas are likely to be flooded several days in advance of the event.

Another initiative entails the setting up of community radios as early warning systems for flooding and drought, with communities being trained in how to identify and predict climate and weather risks. Communities are well placed to provide valuable observational data at local level, with such “citizen science” empowering them to become active actors in gathering information and generating new scientific knowledge.

Indigenous knowledge can also play a vital role in predicting hazards and adapting to climate change. The Local and Indigenous Knowledge Systems programme (LINKS), supported by Sweden and the Japanese Funds-in-Trust to Unesco, seeks to build the capacity of pastoral communities to contribute to science policy dialogues, and bridge scientific and indigenous knowledge on climate change to make communities more resilient to climate change.

The Be-Resilient Project, supported by the Flanders Unesco Trust Fund (FUST), uses Unesco’s biosphere reserves in South Africa as observatories, with a focus on monitoring floods, droughts and landslides, again engaging with communities to develop bottom-up climate adaptation strategies. A similar project is also underway in Zimbabwe.

There is a need to connect all in-situ data sets, and for a low-cost internet of things to support data collection. The Unesco Open Learning platform’s course on climate risk has proved popular in the region, with a new iteration coming up in July 2021. This will help to build a community of practice ahead of the next United Nations Climate Change Conference.

- Unesco Open Learning platform: <https://openlearning.unesco.org/>
- Upcoming Copernicus programmes and events:  
<https://climate.copernicus.eu/copernicus-user-learning-services-training-africa>;  
<https://climate.copernicus.eu/c3s-conference-general-assembly>

### **Q&A segment**

Ramaru of South Africa’s environmental department said the CSIR was working on the implementation plan for climate services and was willing to support the department with research. He said there was a need to further strengthen the current collaborative approach involving partners such as the CSIR, the SAWS and SAEON, and to involve the South African National Space Agency as well, in implementing the NFCS.

Labat from the European Union Delegation raised the issue of facilitating more peer-to-peer dialogues so that South Africa and other countries in the region can participate in a “fast learning loop” on climate services. Such exchanges would also benefit tech-savvy entrepreneurs in the private sector who would be inspired to formulate low-cost climate services to address the needs of farmers, for example, she said.

Ramaru agreed that it was important for such initial contact to take place to see who was doing what and whether there were opportunities for collaboration, such as a common programme for capacity building.

Dr Jonas Mphepya of the SAWS said there was a need for long-term projects to bring the users on the ground in communities together with the science on climate services, for maximum impact. He concurred that “the sky’s the limit” for entrepreneurs to take publicly available data and tailor it for different users in the climate services space.

Stijn Vermoote of the European Centre for Medium-Range Weather Forecasts (ECMWF) said the Copernicus Climate Change Service offered free and open information about past, present and future climate issues around the world. He said the existing training sessions on offer would be ramped up, and if there was a clear demand from any country or region for training and capacity building, the centre would be willing to lend a hand.

Vincent Gabaglio of the European Organisation for the Exploitation of Meteorological Satellites (EUMETSAT) said several institutions make use of its satellite data. He said data tools that are beneficial for the SADC region could be proposed to provide a link between service providers and end users. Christine Traeger-Chatterjee of EUMETSAT said that it has a wealth of data available that could be useful to the region, but the organisation does not have expertise on the development side – so co-development collaborations could be an option.

Tebogo Matlhare of the EU Delegation in Botswana touched on a four-year, €8-million EU-funded project in the SADC region that kicked off in 2019, aimed at improving access to climate services. He noted that informed decision-making relating to climate issues had already improved as a result, and that the project was providing a valuable learning platform for the region.

Summing up the session, Nikolas Bosscher said the importance of NFCS as a basis for adapting to climate change was driven home, as was the need for a strong central anchor to drive the framework. The infrastructure challenges impeding South African climate monitoring were concerning, however. Looking ahead, it was imperative to coordinate different initiatives and discuss how to link different service providers and end users, he said.

To view the full presentation, [click here](#).