Report on SADC Climsoft Training in
Johannesburg, South Africa on 10 – 14 March, 2025

Key Information

Name of Organisation:	SADC
Name of Activity:	Workshop on Climsoft Training for SADC Region
Facilitated by:	Samuel Machua
Venue and Dates of Activity:	Johannesburg, South Africa on 10th – 14th March 2025
Report Prepared by:	Samuel Machua
Job Title:	Climate data management and CDMS Consultant

1. Introduction and Background

SADC had contracted NOVIAN Technologies to supply equipment for climate data management with Climsoft CDMS and provide training to member countries. The NOVIAN Technologies supplied the equipment and sub contracted Samuel Machua from Kenya a Climsoft developer to train on Climsoft operations.

The Climsoft training was to be carried in two (2) phases. In Phase I of the training participants would meet for a physical training in Johannesburg, South Africa. The second phase was to be conducted virtually where the participants will be at their NMHS met services and be trained using the newly supplied equipment together with the existing data management computing facilities.

This report summarizes the activities undertaken during the first phase of the training

2. Objectives

The objective of the training was to provide SADC member countries with skills to use Climsoft CDMS in their climate data management operations. Phase I of the training was aimed to cover all the basic Climsoft operations using the participants laptops while the advanced operations that requires use of operational equipment would be covered in Phase II.

After Phase I training, the participants were expected to use the acquired skills and implement Climsoft in their countries in preparation for Phase II that will be conducted virtually. In Phase II participants will be trained on how to implement Climsoft using the equipment supplied by NOVIAN Technologies together with other computing facilities at their NMHSs.

3. Opening of the Training:

The training was opened by Dr. Obadias Cossa, one of the technical facilitators from SADC. He welcomed all to the training and explained that the training was funded through ClimSA project with the aim of building management of climate data in SADC member countries. He emphasised on the importance of acquiring skills to use Climsoft CDMS that had already been implemented in a number of countries in SADC region and beyond. He wished the participants a successful training.

The training was attended by 15 countries with 2 participants from each as listed in **Appendix I**. The venue was at Birchwood Hotel in Johannesburg.

The training activities were carried out through demonstrations and practical work. Material used in training included Climsoft manual, power point presentations, downloads from Climsoft web site and data from participating countries.

The training activities were carried out as follows:

Day 1: Introduction to Climsoft and other CDMSs
- Presentations by countries on their expectations from the training.
- Presentation on Climsoft basics and comparison to other CDMSs.
- Presentation on online Climsoft resources and countries where Climsoft has been implemented.
- Presentation on Climsoft database model and data flow within Climsoft CDMS
- Where to locate Climsoft resources – https://www.climsoft.org
    - Manual document and videos.
    - Climsoft installation and upgrade setup files.
    - Climsoft users' forum.
- How to downloading Climsoft installation files and start installation process.

Day 2: Climsoft installation, administration and operations
- Climsoft installation and upgrade
- Climsoft environmental and operational settings
- Users administration
- Metadata management - Import, update and settings
- Data import procedures
    - How to use Climsoft data import dialogs
    - Creating and saving import specifications for different file formats
    - Monitoring data import process

Day 3: Data imports, QC and visualisation
- Practical work and training on how to import data from different sources and formats – Excel, texts files, AWS, NOAA GTS.
- QC, errors corrections, update and uploads.
- Visualisation of the imported data.

Day 4: Data visualisation and developing climate products
- Training on development of different analyses from data archived in Climsoft
    - Inventory of the archived data
    - Tabulate products - summaries, monthly normals, extremes etc.
    - Graphics – Time series and bar charts
    - Data export in formats suitable for use by other applications – CDT, CPT, Instat Climdex etc.

Day 5: Data backups, Restore and Training Closure
- Training on data backup and restore procedures – Selected data and entire Climsoft database
- Discussion on requirements for Phase II training

- o Setting up equipment for Climsoft operations and network connectivity
- o Software required for Phase II training and remote computers access – *Zoom* and *Anydesk* respectively
- o Training Closure

5. Challenges encountered and Gaps Identified:

Challenges encountered included:
- Wide ranges of skills in use of Climsoft among participants. Some were new to Climsoft while others were experienced users. As a result the participants required different levels of training in some cases.
- While training was conducted in English few participants had different language backgrounds i.e. French and Portuguese. Those who were weak in English required extra assistance thereby slowing the training

6. Way Forward:

At the closure of the training it was agreed that, countries will install the equipment supplied by NOVIAN Technologies in preparation for Phase II training. The installation should be a joint effort between Climsoft managers and ICT personnel. The trainer recommended and demonstrated the suitable set up for the equipment for Climsoft operations. This will include the newly supplied equipment and the existing computing facilities. The proposed setup is listed in **Appendix II**.

It was agreed that the date for Phase II training will be decided when all the countries have installed the new equipment. SADC facilitators will liaise with the countries in that exercise.

7. Conclusion

From the feedback report given at the end of training, it was observed that most of the participants highly appreciated the training despite the short duration. Most wished if the training period was longer than 5 days.

We all look forward to a successful Phase II training.

8. Acknowledgement

As the trainer, I take this opportunity to thank all those that contributed to the successful conclusion of the Phase I training and in particular the following:
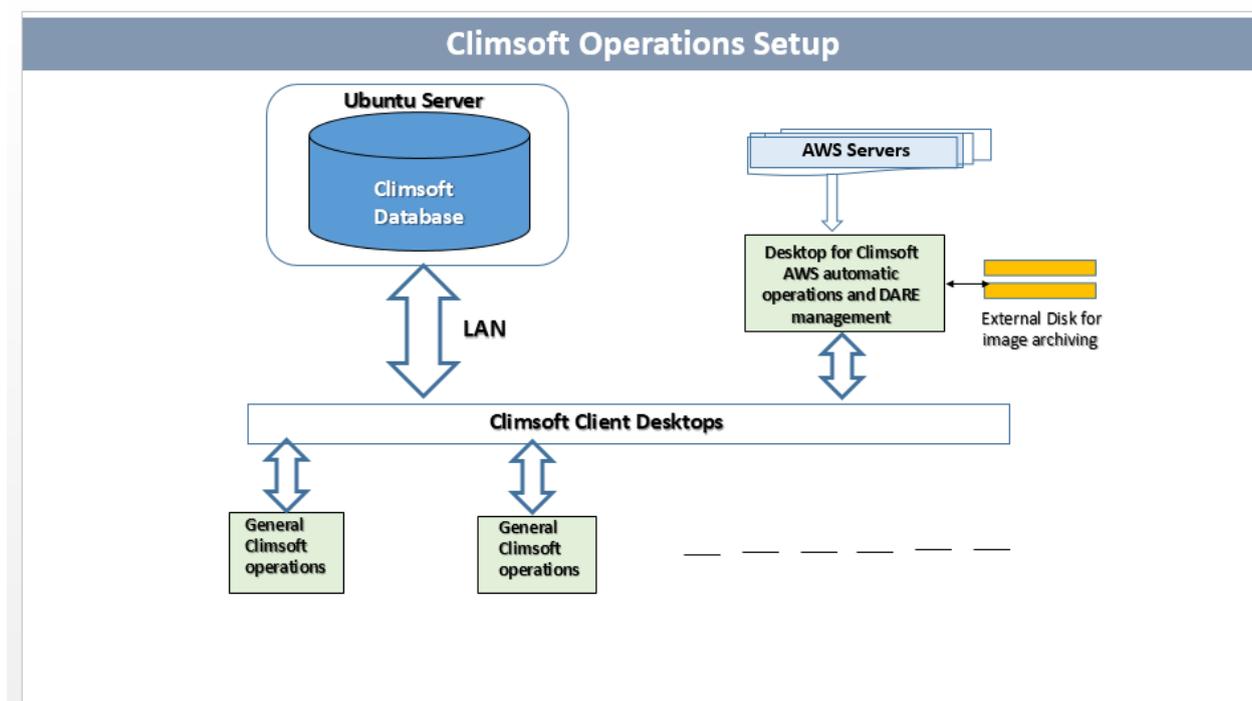
- **The SADC organization** – For looking for funds to equip the countries with skills and tools to improve climate data management in their NMHSs
- **All facilitators from SADC and NOVIAN Technologies** – For facilitating the training and delivery of the new equipment.
- **The Participants** – In their eagerness to learn new skills despite the tight program. Their interactive participation contributed much in the success of the training.
- **The Venue providers (**Birchwood Hotel**)** – They provided a good learning environment with all required training facilities for that big number

8. Appendixes

Appendix 1: List of Participants

No	Member Sta	Nominee	Gende	Position	Email	Mobile
1	Angola	Lameira Gaspar	Male	Climate Expert	gasparlameira94@gmail.com	+244 924 199 366
2		Feliciana Gomes	Female	Climate Expert	felicianagomes2000@hotmai	+244 937 421 344
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Appendix II: Climsoft Operations Setup

Climsoft Operations Setup

Appendix III: Photos from the Training Workshop

Appendix IV: List of Acronym Used

1. AWS   Automatic Weather Station
2. CDMS   Climate Data Management System
3. CDT   Climate Data Tool
4. CPT   Climate Prediction Tool
5. ICT   Information and Communication Technology
6. NMHS   National Meteorological and Hydrological Services
7. QC   Quality Control
8. SADC   Southern African Development Community

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