



AFRIMETS
Intra-Africa Metrology System
Système Intra-Africain de Métrologie



SADCMET REPORT TO AFRIMETS GA

Presented by:

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SADCMET TC 1 – Chair

Nairobi, Kenya

Presentation Overview

- Background and Structure
- Activities undertaken during the reporting period
- Measurement Comparisons
- Future Plans
- Capacity building/Training

Background and Members

- SADC MET is one of the SADC TBT structures which comprises NMIs of the 16 SADC member states.
- South Africa is a full member of the BIPM.
- Six SADC- NMIs are Associates of the CGPM
 - Botswana, Mauritius, Namibia, Tanzania, Zambia and Zimbabwe.
 - All 6 member states have signed the CIPM MRA.
- One more country (DRC) is in the process of joining.
- 5 Associates members ; KEBS, NIS, SON, Ethiopian Metrology Institute & Uganda National Bureau of Standards

SADCMET Structure/EXCO

Position	Country	Name
Chair	Tanzania	Ms Stella Mrosso
Vice-Chair	Botswana	Mr Shadrack Kajane
Past Chair	Eswatini	Mr Mandla Ntshakala
SADCMET Secretariat (RC)	South Africa	Mr Donald Masuku
TC 1 – AFRIMETS and BIPM Issues	Botswana	Mr Modiriemang Kame
TC 2 – Metrology Education & Training	Lesotho	Ms Qenehelo Lenka
TC 3 – Metrology Infrastructure Development	DR Congo	Mr Florian Ngindu
TC 4 – Metrology Legislation Harmonization	Namibia	Mr Simasiku Matali
TC 5– SME Development	Mozambique	Mr David Magaia

SRMO Activities undertaken during the reporting period

- SADC MET held its General Assembly meeting during the SADC TBT meetings held in Luanda, Angola in a hybrid format on 14 March 2024. Keynote address from Dr Christoph Sonntag on Digital Calibration Certificates & Digital Conformity Assessment Certificates – Collaboration of NMI's in SADC on building digitalization capabilities
- SADC MET participated in the June 2024 30th ARSO GA meeting in Nigeria.
- APMP meetings
- Recommendation – SADC MET & AFRIMETS to participate in APMP meeting to learn, collaborate on mutual project, share expertise & information
- 47th JCRB meeting held in Costa Rica 18 – 22 September 2023, Afrimets represented by Dr Wynand Louw – NMISA, Prof Khaled & Dr Henry Rotich. Next JRCB meeting slated for 16th September 2024.
- SADC MET honoured Dr Louw for his outstanding contribution to Metrology in SADC & Africa
- SADC MET is also actively participating in PAQI activities

SRMO Activities undertaken during the reporting period

- Every year, SADCMET runs the SADC Water PT scheme for the chemistry and micro-biology analysis of water sponsored by PTB and after each PT round an evaluation workshop is organized to evaluate the results of all the participating laboratories in the Chemistry and Microbiology analysis of water in Africa. .
- More than 100 laboratories from most of the AFRIMETS countries participate in the Water PT scheme.
- Due to delays in distribution of PT samples, the 2023 evaluation workshop to evaluate the results of the 20th chemistry PT round and 15th microbiology PT was not held. October 2024 evaluation w/shop for 2022 & 2023 PT rounds to be conducted in Namibia by NamWater.
- Training in Pressure metrology underway- Theory done 01/24 and practical 08/24 (sphygmomanometer calibration)

Measurement Comparisons

- SADC MET NMIs especially the 6 Associates of the CGPM are continuing to participate in the AFRIMETS supplementary comparisons in the fields of mass, length, and temperature in support of the project for submission of CMCs in the KCDB.
- In 2019 SADC MET compiled an ILC Plan and conducted ILCs in four metrology fields namely Volume, Dimension/Length, Mass and Temperature which was funded by PTB as part of the SADC MET Five-Year Strategic Plan 2017 - 2022
- The ILC Plan aims to assist member states which are pursuing accreditation and also support those developing NMIs to gain internationally recognized measurement system and to strengthen SADC Associates of the CGPM through participation in supplementary comparisons in order for them to submit CMCs in the BIPM key comparison database

Future Plans

Future Plans include:

- Capacity building in Pressure Metrology (Project proposal has been approved and funds already committed)
- Support for ILCs closing workshops in the two remaining fields of Volume and Temperature
- Support for development of the new SADC MET Five Year Strat Plan 2024-2029
- Open ILC system- TC1 vice Chair

FUTURE SADCMET ILCs

2024 – 2029 Strategy plan – Dares-salaam,TZ 09/2023. Adopted during SADCMET GA – Luanda, Angola – March 2023.

- Structure, Codes of procedures, ILC's, Funding, etc
 - Metrology focus (ILC)
 - Length – Feeler Gauge, Levels, Squares, damping level/survey instruments.
 - Force – Compressive, Tensile & Torque wrenches
 - Humidity
 - Time & Frequency – Timers, Rotational instruments.
 - Electrical – Energy Meter, Power Meter, Multimeters, Earth leakage meters
 - Chemistry – pH meter
 - Volume – Flow meter

Future Plans

- SADC MET to train metrologists in various fields, enrich, capacitate, re-fresher .
- NMISA has established an African Reference Institute (ARI)
- Main objective is to serve as a reference measurement interface with collective expertise and capability in the context of the African Continental Free Trade Area (AfCFTA)
- The establishment of the Institute is to serve as an aggregator between government, academia and Industry – a gateway by providing training, reference measurement, and calibration services
- The Training Centre is pivotal and is supported by the Analytical Reference Measurement laboratories and the Industry Metrology laboratories
- Providing training in reference measurement expertise, calibration, and consultancy in those fields critical to economic growth in South Africa and the African region.

Training categories

- Classroom training
- On-line (Teams or Zoom) training
- On-line – self-study training
- Hands-on training



List of available courses

Course titles	
Introduction to Metrology	Sample preparation
UoM (Analytical)	Basic and advanced GC and MS
UoM (Physical)	Quantitation using GC-FID
Introduction to DC-LF	Quantitation using GC and GC-MS
IR thermometry and Thermocouples	HPLC-MS
Length	Chemometrics
Dimensional calibration	Method validation
Mass and Volume	Scientific Report Writing
Humidity	Quality Infrastructure
Vibration	Laser safety
Electrical	Operational training (Methods)
Photometry	3-D printing
ISO 17034	ISO 17025





Thank you

Merci

