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SADCMET ANNUAL REPORT FOR THE PERIOD MAY 2007 - APRIL 2008

This report covers a summary of activities carried out and coordinated by the SADCMET Secretariat during the period under review.

1. AFRIMETS GENERAL ASSEMBLY

Following the establishment of AFRIMETS in 2006 during which a draft MoU was prepared, AFRIMETS held its first General Assembly meeting in July 2007 at the premises of the NEPAD Secretariat in Midrand, South Africa. The MOU was finalised and signed by 4 Sub Regional Metrology Organisations (SRMOs), namely SADCMET, EAMET, CAMET, SOAMET and MAGMET, representing 39 countries in Southern, Eastern, Central and Western Africa. In addition, Nigeria has signed on as an individual member. Egypt currently is instrumental in the establishment of a sixth sub-regional metrology organisation in North Africa. It is expected that this SRMO will also join AFRIMETS once formalized.

The following strategic objectives were identified at the first GA meeting, classified into four groups:

1.1 CUSTOMER objectives:

- Satisfy and sensitize customers and stakeholders, which include the recipients of services, the International Bureau of Weights and Measures (BIPM), African countries, NMIs, RMOs, Governments, industry and consumers;
- facilitate trade;
- deliver value for money for measurements;
- increase number of services;
- facilitate consumer protection, health, safety and the protection of the environment;
- integrate the needs of members / stakeholders;
- sensitize customers and stakeholders about international requirements.

1.2 FINANCIAL objectives:

- Reduce cost of metrology development by use of internal institutions in Africa;
- sustain regional resources;
- ensure financially strong sub-regional metrology bodies;
- transfer traceability to end users in a cost-effective way;
- make sure AFRIMETS will be self-sufficient;
- maximize scarce financial resources.

1.3 INTERNAL PROCESS objectives

- Regional interactions and exchange of members;
- harmonisation of regulations and policies;
- put quality systems in place and comply with ISO 9000 and 17025;
- facilitate the removal of TBTs;
- put in place continuous improvement strategies;
- improve capacity of members;
- improve standard of metrology.

1.4 EMPLOYEE LEARNING & GROWTH objectives

- Training people at lower cost;
- establishment of databases for use by members;
- use of African experts for training;
- become a forum for exchange between metrology organisations;
- facilitate the technical competence of personnel;
- share of expertise and awareness;
- develop world-class metrologists;
- establish a culture of continued learning.

1.5 AFRIMETS EXECUTIVE COMMITTEE STRUCTURE

An Executive committee was elected, representing all the sub-regions in Africa, with members as follows:

Chairman Vice-Chair (Legal) Vice-Chair (Ind/Sci)	Dr Wynand Louw Mr Geraldo Albasini Dr Mohamed Berrada	(SADCMET) (SADCMEL) (MAGMET)
Members:		(
Ms Noura Laroussi		(MAGMET)
Mr Joel Kioko		(EAMET)
Mr Oumarou Yankine		(SOAMET)
Mr Kimon Zulu		(SADCMEL)
Mr Lionel Ngwessy-Malaga		(CAMET)
Mr Stuart Carstens		(SADCMEL: Head Secretariat)
Mr Karim Khalil		(NEPAD representative)

The Executive Committee has since its formation held two meetings, the first in South Africa hosted by the NMISA from 4-5 October 2007, and the second in Morocco hosted by LPEE/LNM from 12-14 March 2008. The AFRIMETS code of procedures and working programme were developed and finalized at the meeting in South Africa, while the meeting in Morocco finalized the Technical Committee and working group structures of AFRIMETS and the Chairpersons of the various TCs were appointed. The meeting in Morocco also gave permission to the Chairman of AFRIMETS to propose to the JCRB at the next meeting in New Zealand that AFRIMETS replaces SADCMET as the RMO.

The next AFRIMETS GA will be held from 1-4 July 2008 in Tunis, Tunisia.

2. 17th JCRB Meeting, Ottawa, Canada, September 2007

Dr Wynand Louw and Mr Michael Streak represented SADCMET and SA at the Joint Committee for Regional Metrology Organisations and the BIPM meeting in Ottawa, Canada from 27 to 30 September 2007, which was held back to back with the SIM General Assembly and Council meeting. Mr Streak, the then Acting SADCMET Regional Coordinator, gave a presentation on activities in SADCMET during 2007, and Dr Louw gave a presentation on the Intra-Africa Metrology System, AFRIMETS.

Key discussion areas focused on the following issues:

- Status of the KCDB
- Updates from RMOs on QS reviews and lists of CMCs
- Status of CMC reviews (pending CMC reviews on the JCRB website)
- Report by the working group on the redefinition of the term CMC
- Guidelines for the use of the CIPM MRA logo
- Criteria for the selection of peer reviewers for NMIs
- Recommendations to CCs for establishing relationships between CMC and Key comparisons

- Formation of a task group to harmonize RMO criteria for review of CMCs in the absence of supporting key comparisons

CIPM/ILAC joint statement on the CMC/BMC issue

3. CGPM Meeting, Paris, France 12-16 November 2007

Four NMISA staff members, led by the Acting CEO Dr Wynand Louw, represented South Africa at the 23rd General Congress on Weights and Measures (CGPM) from 11-16 November 2007 in Paris, France.



The CGPM is made up of representatives of the governments of the member states and observers from the associates of the CGPM.

Each General Conference receives the report of the International Committee for Weights and Measures (**CIPM**) on work accomplished; it discusses and examines the arrangements required to ensure the propagation and improvement of the International System of Units (**SI**); it endorses the results of new fundamental metrological determinations and various scientific resolutions of international scope; and it decides all major issues concerning the organization and development of the **BIPM**, including the budget of the BIPM for the next four-year period.

Important decisions were taken on the future realization of the kilogram and changes in the definition of the mole, ampere and Kelvin.

Two other SADCMET members, Egypt and Kenya attended the 23rd CGPM meeting.

4. The 1st Arab Metrology Conference, Cairo, Egypt November 2007

The first Arab Metrology Conference aimed at establishing an Arab Regional Metrology Organization and enhancing collaboration among metrology institutes in Arab countries, took place in Cairo, Egypt from 6-9 November 2007. The SADCMET RC and the AFRIMETS Chairman attended the conference. The AFRIMETS Chairman delivered a paper on the Intra-Africa Metrology System and valuable contacts were made with countries such as Jordan, Syria, Saudi Arabia and the "MAGREB" or French speaking African countries.

5. SADCMET Water Testing Laboratories Proficiency Scheme

The fifth Water PT Workshop was held in Dar es Salaam, Tanzania from 3-7 December 2007. The workshop covered the evaluation of the 4_{th} SADCMET Water PT round and all aspects that could be derived from the results. The results showed that there is – generally seen - not really an improvement over the 4 PT rounds. Most probably this is due to the absence of adequate corrective actions after failures in the PT. Therefore one of the topics in the training session was the information on how to do corrective actions as part of a method validation procedure.

Most of the participants are still very enthusiastic. The workshop recommended that the PT system for chemical analyses be continued and that it be extended to microbiology as discussed in 2006 and in this respect appointed Uganda National Bureau of Standards to be the pilot lab for the microbiology water analysis. The structure of local coordinators turned out to be very useful and should be further strengthened to minimize logistical problems and to increase the number of participants. The assessment procedure using limited standard deviations has again proven to be very effective; the statistical methods are in accordance with the internationally recommended procedures.

The SADC ASSOCIATION OF WATER TESTING LABORATORIES (SADCWATERLAB) had its general assembly meeting during the workshop. This association is the responsible body for the PT system and an opportunity for collaboration and information exchange between its members. The role of SADCWATERLAB was strengthened by an official memorandum of understanding (MoU), which was concluded during the General Assembly. The GA also finalized its work programme for 2007-2008.

The workshop reported here followed previous workshops held in Windhoek, Namibia (February 2004), Pretoria, South Africa (November 2004), Dar es Salaam, Tanzania (November 2005) and Gaborone, Botswana (November 2006). The reports are available from the SADCMET website on <u>www.sadcmet.org</u>

The workshop was attended by 32 participants from the following countries:

- Botswana 1
- Ethiopia 1
- Kenya 2
- Madagascar 1
- Malawi 1
- Mauritius 1
- Namibia 3
- South Africa 2
- Swaziland 1
- Tanzania 14
- Uganda 2
- Zambia 1
- Zimbabwe 2



The next workshop for the PT evaluation which will include both chemical and microbiology analyses will be hosted by Uganda National Bureau of Standards in Kampala, Uganda and PTB has agreed to sponsor two participants per country (one from each field: chemical and microbiology).

5. BIPM/ILAC and RMOs/RABs Workshop

The RC and the AFRIMETS Chair attended the joint BIPM and ILAC meeting and workshop of representatives from the Regional Metrology Organisations (RMOs) and the Regional Accreditation Bodies (RABs) held from 10-11 March 2008, at the BIPM in Paris, France. This is now an annual forum between these bodies and discussions focused on the following:

- Reports of the activities of ILAC, APLAC, BIPM and the RMOs and the RC reported on SADCMET activities
- Review of how RMOs and RACBs can work more closely so as to increase confidence in traceable measurements, where is the current system weak and how can we make greater progress and have a greater impact with regulators etc, in specifying the need for accreditation and SI traceability.

The RMO/RACB meeting was preceded by a ¹/₂ day workshop and focussed on the following:

- The development of the new CMC definition and its implications for accreditation and metrology communities
- The CIPM RMA CMC review process
- The BIPM key comparison database (KCDB)
- How to use data from the key comparisons and CMCs in support of an accreditation process.

6. SADCMET EU Project Plan Extraordinary Meeting

The SADCMET EU Project component was updated by the task team in accordance with the mandate given to it at the 2007 SADCMET meeting in Madagascar. During the extraordinary meeting to discuss the updated Project plan with the TA team held in Gaborone on 21 January 2008, the following decisions were agreed upon:

- SADCMET member institutions will be expected to express commitment with regard to the counterpart contributions required of SADC member states in terms of the SADC-EU Financing Agreement. These include the provision of suitable laboratory facilities and personnel. In the absence of this commitment, the specific member institution might be excluded from specific project activities.
- Lesotho was given until June 2008 to obtain this commitment, particularly with regard to laboratory space.
- Suppliers would be required to include consumables, spare parts and maintenance for the first three years in quotations for equipment. They would also have to provide user training on the supplied equipment on installation or delivery.
- Precise equipment specifications will be drawn up in close consultation with each national member institution before putting out a tender.
- The amended final SADCMET project plan as proposed by the task team was approved with the modifications described under section 3.2, subject to a final decision by June 2008 on Lesotho's position.
- The SADCMET representatives to the forthcoming SQAMEG meeting were mandated to convey SADCMET's support for the proposed suspension of the SRCME MOU.

• The AFRIMETS Chair was authorized to indicate to the JCRB at its next meeting in New Zealand that SADCMET agrees in principle with its JCRB function being taken over by AFRIMETS in due course. The issue will be discussed again at the next SADCMET meeting in Cape Town and it will be ascertained whether and when AFRIMETS is organisationally ready to take on this responsibility.

Following the Gaborone meeting, a questionnaire was circulated to member states to further update their equipment needs and responses were received from all countries except Madagascar. The information has been collated by the TA team and is being used for the project estimates. Full EU project status report will be presented by the TA team.

7. Workshop of SADCMET TC and Working Group Chairpersons

The SADCMET Secretariat in collaboration with the SADC Secretariat and through funding from the EU project organized the SADCMET TC & Working Group Chairpersons workshop which was held in Pretoria, South Africa on 27-28 March 2008. SACMET associate members were sponsored by PTB. Part of the workshop agenda was technical presentations, which were meant to provide an overall background to CIPM/BIPM structures, activities and programmes, in order to ensure that all Chairs had a clear, uniform and standard understanding of these issues. The presentations focused on the following themes:

- **4** Essential elements of the CIPM MRA.
- **GMCs** Review process.
- Organisation of Comparisons and role of the Consultative Committees in implementing the CIPM MRA.
- **4** The BIPM Key comparison Data-base.

Following presentations by each TC and Working group Chair in which they gave highlights of the activities and projects within their respective areas, a discussion session entailed which was meant to provide direction and ideas for comprehensive work programmes for each respective Technical Committee and Working Group. Identified discussion points encompassed the following:

- Roles/responsibilities of TC and Working Group Chairs
- MRA requirements for NMIs.
- Metre Convention membership or Associate of the CGPM
- SADCMET regional CMCs data-base (Capabilities not yet recognized)
- CMCs reviews: SADCMET template/format
- CMC/BMC issue
- Technical peer reviews
- RAB & RMO/NAB & NMIs cooperation
- TC & WG Chairs future meetings Full report of the proceedings is attached in the meeting documents.

8. Metrology Support for SMEs Project

Since 2004, SADCMET, with the support of PTB, embarked on a project to assist SMEs to become globally competitive through improvement and development of their measurement capabilities and services.

The first phase of this project entailed the preparation and finalisation of the Measurement Practice Improvement Guide (Toolkit), and its translation into all SADC official languages. The second phase comprised a series of toolkit roll-out workshops in all 14 member countries in SADC between 2005 and 2006 with the specific objective of disseminating the toolkit and related technical information and knowledge on metrology through the major SME agencies in the respective countries (NMIs, Standards Bodies, Chambers of Commerce and Industry, and Export Promotion Agencies).

The third phase of the project which is currently underway entails an impact evaluation and assessment of the work done to-date in so far as SME support in terms of measurement improvement is concerned. A questionnaire was circulated to all member countries to give feedback which will be used to proceed to the fourth and final phase of the project, namely establishment of a bench-marking study in order to come up with best-practices across member countries and a regional model. For this process, two member countries will be selected for follow-up activities on the basis of the submitted information on the questionnaire returns. PTB has contracted this work to Dr Mukayi Musarurwa, the former SADCMET RC and is envisaged to be finalized by September 2008.

9. Mass Laboratories Accreditation Project

SADCMET, with the active support and assistance from PTB, is running a project to enable member laboratories to achieve accreditation of their mass labs. A task team was formed to assist with evaluation and review of member labs' quality manuals and mass procedures as a first step towards this process. It was expected that by the end of 2007, a total of 9 mass labs from the region would have been accredited to ISO 17025.

The participating countries (on basis of those who submitted their documents by the deadline) are: Botswana, DRC, Egypt, Ethiopia, Kenya, Mozambique, Tanzania, Zambia and Zimbabwe.

The progress to date will be reported in the individual participating country's reports.

10. SADCMET Inter-comparisons

SADCMET has initiated a number of supplementary inter-comparisons, which will be reported in full in the NMISA country report because almost all these inter-comparisons are being piloted by NMISA. The following comparisons have been initiated:

- Two length intercomparisons: one for 1000 mm line standards and another for end standards up to 100 mm. Seven SADCMET members are participating in both comparisons and are scheduled to start in June 2008.
- A dc Voltage Reference 10V intercomparison with 7 SADCMET members participating (South Africa, Botswana, Kenya, Uganda, Ethiopia, Egypt and Tanzania). Technical workshop and training already held in September 2007 and comparison scheduled to start in May 2008 and is co-sponsored by PTB and NMISA.
- Thermometry intercomparison which is scheduled to start after technical workshop and training in June 2008 and to be sponsored by the EU project. The comparison will evaluate equivalence of the thermometry measurement standards of SADCMET NMIs at the 0.02 °C level over the range -50 °C to 450 °C. The participants will be: NMISA (South Africa), BOBS (Botswana),

MSB (Mauritius), INNOQ (Mozambique), TBS (Tanzania), SIRDC-NMI (Zimbabwe), UNBS (Uganda), KEBS (Kenya), QSAE (Ethiopia) and NIS (Egypt). (The latter four are associate members of SADCMET.)

11. SADCMET Website and Promotional Materials

The SADCMET website has been re-designed with a new "look and feel" incorporating the new SADCMET logo. Most of the information has been updated but the country-specific information pages (contact persons, telephone numbers etc) are outdated and members are requested to provide the Secretariat with the correct contact details. The promotional materials i.e. SADCMET Water PT brochure, Conference Pull-up screen etc, have been re-designed and there is an on-going review of all our promotional materials.

