

# AFRICAN CENTRE OF METEOROLOGICAL APPLICATIONS FOR DEVELOPMENT

Institution Africaine parrainée par la CEA et l'OMM

African Institution under the aegis of UNECA and WMO

21<sup>st</sup> Session of the ACMAD Board of Governors – Location: online tentative date: March 09-10, 2021

### DOCUMENT N° ACMAD/BoG21/DOC 2.1&2.2

# REPORT BY THE BORD CHAIRPERSON AND DIRECTOR GENERAL

February 2021

Action required

The Board is invited to consider and approve the reports

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### 1. REPORT BY THE CHAIRPERSON OF ACMAD BOARD OF GOVERNORS

- 1.1 This report covers the period January to December 2020. It provides a brief résumé of the broad strategic areas in which ACMAD made progress, the activities of ACMAD Board, matters which are required to be reported to the Board and other matters affecting the Centre.
- 1.2 This period saw considerable progress in implementation of the 2020-2023 strategic plan supporting capacity building for NMHSs on weather and climate monitoring and forecasting, providing quality continental weather and climate services with emphasis on weather advisories and watches for significant or severe weather events, Climate Outlooks at regional and continental scales, improving access to data with the procurement, installation and operation of 4 Regional Advanced Retransmission System Stations completing the WMO global Digital Broadcast Network for Low Earth Orbiting Satellites data, enhancing forecasting research and improving governance and management of the centre. More detailed report on the activities are provided by the Director General.
- 1.3 Highlights of the activities of the Board, the Scientific Advisory Committee and the Centre since January 2020 include:
- (a) One Board session held in January 2020 in Addis Ababa. The main achievements were the adoption of the operating plan, the budget and the administrative, financial, human resources and accounting procedure manual as a further step towards standardization of ACMAD's systems and processes as required for international Public Sector Organizations;
- The Specialized Technical Committee of AU agriculture, rural development, (b) water and environment held a session of Ministers on environment and natural resources on 9-13 November 2020 online. This session raised awareness at ministerial level on impacts of COVID-19 and provide political guidance on response to COVID 19. Sustaining weather, climate and water observing, data collection and exchange systems, development and provision of meteorological services were highlighted as priorities to be supported by Countries and partners to build back better after COVID 19 and continue disaster risk management and protect and preserve our environment.
- (c) The Board Chairperson expresses his appreciation to all partners who are supporting the centre and have contributed to the progress of ACMAD during 2020. He thanks the staff for their dedicated professional support for the organization of this session.

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### 2. REPORT BY THE DRIRECTOR GENERAL OF ACMAD

This report covers the period January to December 2020. It contains status of implementation of the last Board meeting recommendations and a summary on progress on implementation of activities during the year.

### 2.1 Status of implementation of last Board meeting recommendations and resolutions

RECOMMENDATIONS	STATUS OF IMPLEMENTATION
1. ACMAD to convene a meeting with AU, UNECA and WMO/AMCOMET to review the relationship agreement with AUC and submit related document to the upcoming AU/STC bureau meeting.	ACMAD held a meeting with the UNECA bureau in West Africa following the January 2020 Board session. The Niamey bureau submitted the recommendation to the headquarters in Addis Ababa and informed ACMAD that the relationship agreement is under study by the Climate Change, Environment and Natural Resources division of UNECA.
2. SACOM to provide a draft on ACMAD policy guidelines on continuous professional training, mentorship and internship for quality services, partnerships and networking	ACMAD established a framework for mentoring with EUMETSAT, on internships and mentoring with University of Reading and the African Institute for Mathematical Science, on the job training with VITO, training material development with UK Met Office through SWIFT, FOCUS-Africa project and Copernicus C3S through Wageningen University and ECMWF.
3. ACMAD should use the existing platforms like SARCOF, GHACOF and other fora to raise awareness on its products for its visibility	In 2020, ACMAD organized the climate part of the RCOF for ECOWAS region, the PRESAC with ECCAS, SWIOCOF with IOC, trained experts and contributed with continental climate outlooks products to MEDCOF, SARCOF, SWIOCOF and GHACOF. Sessions on development of Climate services to update and/or adjust agriculture calendars for building climate resilience were organized by ACMAD at all RCOFs.
4. ACMAD to use WMO template, guides and manuals	As WMO regional Climate Centre for Africa, ACMAD in 2020 applied guide for objective seasonal forecasting, the guide for interpretation of probabilistic forecasts and forecaster handbook. The planning, reporting frameworks and templates of WMO are progressively being used as

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	references. ACMAD is the WMO RCC and is looking for demonstrating capacity to become a continental severe weather
	RSMC therefore applying WMO guides on all weather and climate products provision
5. ACMAD to synergize with WMO regional Training Centres and OSS based in Tunis	In the framework of the SWIFT project training and legacy work packages, ACMAD, WMO RTCs in Niamey/Nairobi and WMO global campus initiative are collaborating on development of new chapters in forecaster handbook and its extension over East Africa
6. ACMAD to contribute to the state of environment report of UNEP	ACMAD and UNEP under the coordination of WMO contributed to the 2019 state of climate for Africa. ACMAD has included UNEP in the list of contributors to the upcoming 2020 state of Africa's climate report
7. ACMAD to prepare a policy document stimulating member states to invest in NMHSs and supporting their evolution	The board to discuss and amend the draft scope of the policy document and provide guidance for its preparation (additional inputs expected in early Jan 2021)
8. ACMAD to add a summary section and a table of contents, the major thematic areas of ACMAD actions, a description of units of activities in the institutional aspects chapter of the manual and develop a similar manual for the operations of technical departments	Addition made in the manual. The development of procedure manuals for technical department operations is ongoing with service/product catalogues, scripts for generation each product collected. These elements are being completed for new products designed in 2020 (i.e. for the 2020 annual state of climate).

### 2.2 Highlights of 2020 activities and achievements

ACMAD implemented activities of 2020 in the process of **bringing about its vision to become a world class operational continental weather and climate Centre** at the hearth of Africa **supporting** African countries to be well **resilient to extremes** with **increased ability to adapt to climate change impacts**.

This period saw progress in implementation of 2020 operating plan on capacity building for NMHSs, quality continental weather and climate services delivery, access to data, enhancement of forecasting research, improvement of governance and management of ACMAD.

The Director General devoted time to lead, direct and guide staff towards implementation of planned activities and projects for 2020. He provided technical supervision for new

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tools and products development towards automation and standardization of ACMAD's methods, tools and products.

2.2.1 To strengthen *capacity of NMHSs*, ACMAD focuses on training programme and material development, organizing and coordinating training events, lecturing and mentoring during and after training events.

Training programme and material development for nowcasting, synoptic forecasting, climate monitoring, sub seasonal and seasonal forecasting, climate indices for the agriculture calendar update and climate change detection and scenario production. This material is progressively uploaded on the ACMAD THREDDS data server.

Coordination and organization of training events hands on, workshops and as part of Regional Climate Outlook Fora in West, Central and Southern Africa as well as the Gulf of Guinea. A pilot combination of online workshops and face to face training at national level on nowcasting, synoptic forecasting, sub seasonal and seasonal forecasting, interpretation of probabilistic forecasts, outlooks, advisories, watches and warnings delivery was organized in Burundi. This example is expected to be upscaled in other countries in the years to come facilitating and supporting competency development and better performance of NMHSs. The **country focused**, **result based** and **full value chain** approach for ACMAD action is therefore taking shape and supporting WMO efforts in Africa.

Online Regional Climate Outlooks were organized and coordinated for PRESASS/ECOWAS, PRESAC/ECCAS, SWIOCOF/IOC and PRESAGG for Gulf of Guinea countries. Lectures and mentoring activities during and after workshops and fora across the continent during the above mentioned RCOFs, GHACOF and SARCOF supported national level capacity building with special emphasis on development of climate information on onset and other parameters of the agriculture calendar.

2.2.2 As support to *quality weather and climate services delivery*, ACMAD operated the WMO Regional Climate Centre for Africa with continental products for climate data, monitoring, long range forecasting and training functions provided. Contributions with continental scale outlooks were provided for all RCOFs PRESASS/ECOWAS, PRESAC/ECCAS, PRESAGG for the Gulf of Guinea, SWIOCOF/IOC, GHACOF/IGAD, SARCOF/SADC and MEDCOF/PRESANORD/AMU.

Nowcasting products (Nowcasting SAF in particular), global and regional analyses and Numerical Weather Prediction deterministic and probabilistic derived products, outlooks, advisories and watches were generated and disseminated. Three levels of deliverables were provided:

- technical notes to guide NMHSs monitoring and forecasting briefings or operations;
- reports and bulletins for awareness raising on upcoming hazards for the general public and experts in agriculture, water, Disaster risk Management, health and other relevant sectors:
- summaries and short statements for planners and policy makers.

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The State of climate of Africa for 2019, the provisional state of Africa's climate for 2020, RCOFs statements, outlooks, advisories and watches for high impact and severe weather events in 2020 (floods, disruptions on the African monsoon onset, high temperatures, droughts, south west Indian ocean cyclones...) were published through emails and website.

2.2.3 To improve access to data, ACMAD through the SAWIDRA project completed procurement, installation and test of 4 Regional Advanced Retransmission System Stations completing the WMO Global Digital Broadcast Network for Low Earth Orbiting Satellite data. This effort contributes to WMO space programme as well as its Information System. ACMAD was reconnected to the WMO/GTS through the Niamey airport hub. Connection to WIS through the Global Information System Centre in Casablanca is planned for 2021. A plan is available to facilitate exchange of ACMAD products through WIS and prepare for MTG and SG EPS data access. Monitoring impacts of COVID 19 on the African synoptic observing network was presented during relevant meetings. The intra ACP GFCS and the emerging resource mobilization effort for implementation of the Abidjan declaration are being followed by ACMAD in the partnership with EUMETSAT under a Joint Working Group established by AUC.

The continental synoptic stations database on climsoft has been regularly updated, PUMA reception station for data disseminated via EUMETCAST is operational, international archives (Copernicus Climate Data Store, ECMWF data archive, NOAA/NOMAD data Server, IRI data Library .....) and the four RARS are providing additional data for ACMAD's activities. ACMAD participated to WMO/RA I RAIDEG group and contributed to discussions on products to be disseminated through EUMETCAST with the MTG and AMSAF.

To enhance forecasting research networks in Africa, ACMAD is implementing SWIFT and FOCUS Africa projects and other initiatives limited in time and scope. Research on nowcasting, synoptic, sub seasonal and seasonal forecasting supported, operational procedures and forecaster handbook preparation, new products development for technical notes and upgrade or extension of training materials using available advances in science and technology. ACMAD Forecast demonstration and SWIFT testbeds have experimented the new products and their detailed design will support 2021 demonstrations and testbeds.

FOCUS Africa project work plan is completed with training plan, material development and organization of training and stakeholder events for climate services delivery and use. Papers, abstracts and presentations were prepared for scientific and technical meetings and events including the American Meteorological Society Conference on hurricanes and tropical meteorology, the WMO Standing Committee on Earth System Modeling and Prediction and the WMO Climate Coordination panel reporting to its Technical Coordination Committee and Executive Council.

An online platform for generation of agro climate services and update or upgrade of agriculture calendars in Africa was developed with VITO (A Flemish Institute for

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technological research for a cleaner and sustainable world). Demonstration and training for the use of this platform have started with 2020 RCOFs and is expected to continue for the upcoming years involving the NMHSs, ministries of agriculture, Food and Agriculture organization.

An online information system with specific tailored weather, water and climate products for Burundi was developed, training material for its use prepared. A similar effort is expected for the upcoming years in other countries.

- 2.2.4 The governance and management modernization of the centre aspect featured:
- the adoption of the procedure manual and starting of its application in 2020;
- the identification of projects and permanent staff posts differences in costing and proposal for harmonization;
- the auditor of ISACIP under recruitment with the call for expression of Interest completed;
- the audits for SAWIDRA up to date;
- the audits for ACMAD up to date, the auditor will share his advises for improving resource management based on a summary from 2015 to 2019 audits reports.

The budgeted resources execution rate for 2020 was **75%** and the budgeted expenditure execution rate was **59,4%**.

Code	Description	2020 Budget resources in Dollars	2020 budget in cfa	2020 actual resources	Budget executi on rate
1	regular resources	1 277 896	681 974 992	458 748 760	67%
11	countries contributions	50 000	26 683 500	730 000	100%
12	Countries contributions ( no ratification of ACMAD's constitution)	-	-	-	0%
13	Grants and aid	1 227 896	655 291 492	432 018 760	66%
2	extraordinary resources	4 512 078	2 407 960 726	1 843 333 205	77%
21	legs and gifts	3 599 192	1 920 780 820	1 371 485 279	71%
22	income from financial activities		-	-	0%
23	books sold and other services		-	38 020	0
24	furniture disposal		-	-	0%
25	plans, equipment and property disposal		-	-	0%

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26	rent of vehicles, rooms, translation booth	43 098	23 000 000	7 630 000	33%
27	projects overheads	-		0	0%
28	opening cash balance	869 788	464 179 906	464 179 906	100%
	TOTAL	5 789 975	3 089 935 718	2 302 081 965	75%

Table 1: 2020 budget resources execution

CODE	Description	2020 expenditure budget (cfa)	2020 actual expenditure (cfa)	Execution rate
100	Operating expenses	412673748	162098897	39,28%
101	Personnel	152896417	96806573	63,32%
102	training	66777331	25911728,96	38,80%
103	Consumables, furniture and other services	193000000	39380595	20,40%
104	taxes, bank charges, unforeseen expenses			0,00%
105	depreciation and provisions			0,00%
200	Research and development expenses	2647261970	1673154039	63,20%
201	ISACIP	0	0	0,00%
202	MESA	0	0	0,00%
203	VITO/CLIMTAG	33747137,85	7499359,594	22,22%
204	VITO:KIMPALA	0	0	0,00%
205	OMM guide PRESAC	5967129	5967129	100,00%
206	SWIFT	105958809	74282069	70,10%
207	FOCUS	92175000	65787023	71,37%
208	UNDP Burundi	161469000	146230989	90,56%
209	SAWIDRA	1920780820	1371485279	71,40%
210	IMPALA	1952190	1902190	97,44%
211	GFCS	325211884	0	0,00%
3	Investment expenses	3000000	859200	2,86%
301	plants property and equipment	26000000	0	0,00%
302	furniture	2000000	859200	42,96%
303	Computer hardware and software	2000000		0,00%
306	reimbursement of debts	0	0	0,00%
	TOTAL	3089935718	1836112136	59,42%

Table 2: 2020 expenditure budget execution

- partnerships, collaboration, commitment and networking letters and agreements discussed or/and formalized with Pennsylvania state University in the US on research and development of new products and training materials, VITO for climate information systems for agriculture calendar updates and local governments climate resilient development planning, AUC for implementation of Climate services at continental level in Africa, CIMA foundation for hydrological monitoring and floods forecasting in Burundi and

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development of continental disaster resilience project with emergency operations and situation room, UNDP for training for climate services providers and humanitarian actors on early warning and action in Burundi, AIMS and University of Reading on data management and products generation with climsoft, R-INSTAT tools development and use in Africa, EUMETSAT for mentoring interns for development of training materials and new products from satellite data supporting monitoring, forecasting, outlooks, advisories, watches and warning;

- Resource mobilization with proposals and agreements providing financial support and technical partnership for training (FOCUS with EU/H2020, uCLIP with the Belgian development agency, KIMPALA with VITO funded by the Flemish government in Belgium, SWIFT with University of Leeds funded by UK Government Global Challenges Research Fund, Agroclim Service with VITO funded by ECMWF through EU funded Copernicus programme, SAWIDRA for weather information for disaster resilience in Africa ISACIP phase 2 to further strengthen climate institutions in Africa funded by African development Bank Regional window, Continental Climate change assessment with Norwegian Refugee Council, Intra ACP GFCS funded by the European Development Fund );
- Report for 2020 and plan for 2021 are presented in this session. Regular progress reports for projects have been provided to contracting authorities and donors, projects formulation and their implementation were completed and some agreements signed ( KIMPALA, Agroclim, FOCUS, WMO guide for Seasonal forecasting, uCLIP, Intra ACP GCFS Continental project, Intra ACP GFCS Regional project for Central Africa );
- Communication, visibility and outreach efforts featured ACMAD attending RCOFs, WMO Climate Coordination Panel and Standing Committee on Earth System Modeling and prediction meetings, steering and kick off meetings of projects, online events for training, projects formulation and coordination meetings, High level events including AU Specialized Technical committees and related sub committees sessions, state of Africa Climate for 2019 launch, technical and scientific meetings for collaboration.
- A feedback is expected from UNECA on the proposal for a meeting with WMO and AUC on the formal agreement on ACMAD as the technical arm of AUC and weather and climate matters. A review of the ACMAD headquarter agreement is being discussed to adapt its relevant provisions to new developments notably in taxation with community levies.

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