

## **RECOMMENDATIONS OF THE 12TH EUMETSAT USER FORUM IN AFRICA 12 SEPTEMBER - 16 SEPTEMBER 2016, Kigali, Republic of Rwanda**

### **Sorted as follow:**

1. *EUMETSAT programme – recommendations #1 to #4*
2. *PUMA 2015, Data and RAIDEG – recommendations #5 and #10*
3. *Climate and SAWIDRA– recommendations #11 to #14*
4. *MESA and GMES&Africa – recommendations #15 to #19*
5. *Training activities – recommendations #20 to #24*
6. *Space and Earth Observation – recommendations #25 to #27*
7. *Other – recommendations #28 to #29*

### **EUMETSAT programme**

#### **Recommendation #1 Roadmap for MTG Africa**

The Forum noted and discussed the results of the MTG Africa Preliminary Study (MAPS). The Forum recommended EUMETSAT, in close coordination with the RAIDEG, to:

- Consolidate the results of MAPS, notably the definition of the "African data sets" and "transition scenario" in line with the discussion held during the MTG Africa session of the Forum, in order to optimise both temporal and spatial resolutions of MTG data, within the current identified bandwidth allocation;
- Present at the next EUMETSAT User Forum in Africa a roadmap for the transition from MSG to MTG, highlighting the actions to be taken at NMHS level to prepare for and implement the transition. This roadmap shall also include user preparedness activities (inc. training on MTG data and products which will be disseminated on EUMETCast Africa).

#### **Recommendation #2 MTG Africa and AMCOMET**

The Forum recommended AMCOMET Secretariat and AMCOMET Space Task Team, as part of their respective mandate to take into account the increase in capacity required for Africa to fully benefit from MTG (i.e. training, user station, EUMETCast bandwidth for data access) and to consider the MTG Africa roadmap that will be proposed by EUMETSAT and RAIDEG (see previous recommendation).

#### **Recommendation #3 MTG Africa – Resources mobilisation**

The Forum noted the bandwidth limitations and the efforts made by EUMETSAT to guarantee the continuity of an optimum satellite geostationary service to Africa.

The Forum recommended

- to the NMHS to mobilise resources for upgrade of their user stations (e.g. PUMA), the related infrastructure (e.g. processing chains) and the EUMETCast bandwidth, all required to access broader data sets and make best use of MTG data when available;
- to AMCOMET and AUC to support the NMHS in their resources mobilisation to prepare for the reception of MTG data in Africa;
- to EU and ACP Secretariat to include the relevant components in future EC-funded projects such as GMES&Africa or GFCS ACP.

**Recommendation #4  
MTG and North Africa**

The Forum recommended EUMETSAT to support NMHSs of North Africa to be ready for the acquisition of MTG data, products and services in a timeframe simultaneous to that of the European NMHSs by creating links between NMHSs North Africa and the preparatory programme focused on European NMHSs (MTG-Up).

**PUMA 2015, Data and RAIDEG**

**Recommendation #5  
MET-8 image display on PUMA 2015**

The Forum noted the move of MET-8 over the Indian Ocean (41.5 degree East), which will provide improved services over a large part of Africa. It recommended EUMETSAT and AUC (MESA) to ensure that the PUMA 2015 stations will be able to display the MET-8 images over the Indian Ocean.

**Recommendation #6  
PUMA 2015 upgrade for new products**

The Forum noted the improvement provided by the PUMA 2015 station with respect to the PUMA 2010. It noted also that products provided through EUMETCast are continuously enhanced. The Forum also noted that some of the new products are not processed neither displayed by the PUMA 2015 station. The Forum therefore recommended AUC to explore timely upgrade of the PUMA 2015 stations, in order to integrate the news products or to improve the production tools for forecasters, through the MESA project, or, if not feasible, through the follow-on GMES&Africa project.

**Recommendation #7  
Deployment of PUMA 2015 stations**

Noting the difficulties in some countries with regards to custom formalities for the importation of new PUMA 2015 stations, despite the renewed efforts of the national beneficiaries, the Forum recommended MESA programme (AUC and RICs) to contact again the concerned countries to remind them about the Cotonou agreement ruling the import rules, insisting on the importance of the station for those countries.

**Recommendation #8  
PUMA 2015 displayed information**

The Forum recommended AUC to ensure that the contractor in charge of deployment of the PUMA 2015 stations verifies that all contractual products/data can be displayed immediately as of first day of installation.

In addition, the Forum recommended NMHS to strengthen their communication network to ensure that data received through the PUMA 2015 stations are also made available to other national institutions.

## **Recommendation #9 Togo Antenna**

The Forum recommended AGRHYMET to support Togo NMHS to acquire and install a new antenna and LNB that will allow their new PUMA 2015 station to receive EUMETCast data.

## **Recommendation #10 RAIDEG focal points**

Noting the formal adoption by the WMO Regional Association of RAIDEG to coordinate regional data requirements<sup>1</sup>, the Forum recommended RA-I Permanent Representatives with WMO to nominate Focal points, as already invited by the Regional Association I President, to interact with their RAIDEG regional representative in order to better address the African community user's needs. In particular, Focal points will be asked to comment on the access and utilisation of data currently disseminated to and within Africa, on any training requirements and recommendations to WMO regional association I, and on programme implementation structure. This should be done by December 2016 to enable RAIDEG to consult regions prior to the next RAIDEG meeting.

The Forum further recommended AUC and RAIDEG to ensure that data needs of the MESA RICs and future GMES&Africa RICs, are also identified during the RAIDEG processes.

## **Climate and SAWIDRA**

### **Recommendation #11 Implementation of SAWIDRA**

The Forum noted the delays taking place in the formalisation of the agreements for the implementation of the SAWIDRA continental and regional projects. The Forum recommended AfDB and AUC to expedite the signature of the contracts with the SAWIDRA implementation centres: ACMAD, ICPAC, AGRHYMET, SADC-CSC and ECCAS (for the SAWIDRA Central Africa). The Forum further recommended ECCAS to focus the SAWIDRA resources exclusively on project-related activities, aiming at increasing technical capacities within the centre and delivering information and services to the Member States, through their NMHSs.

### **Recommendation #12 Climate Regional Centre – Central Africa and SAWIDRA**

The Forum noted the Kigali Declaration in support to the Climatic Application and Prediction Centre for Central Africa (CAPC-AC), signed on the eve of the 12<sup>th</sup> EUMETSAT User Forum in Africa, recommended to the Forum participants, notably those from the ECCAS and CEMAC member states to bring this declaration to the attention of their Ministers in charge of meteorology.

The Forum acknowledged the efforts of ECCAS in setting up the CAPC-AC and further calls upon ECCAS and its Member states to continue providing the necessary human and financial resources for the operationalisation of the centre.

The Forum requests the Africa Development Bank and other partners to enhance their support to ECCAS to make so that the centre becomes operational as soon as possible.

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<sup>1</sup> <http://www.wmo.int/pages/prog/sat/ra1-expertgroup-intro.php>

### **Recommendation #13** **Benefits of climate services**

The Forum took note that the NMHSs and service providers in the context of MESA start to take steps in working on measuring the socio-economic benefits of different services they are providing including through the availability of new Earth observation products.

The Forum recommended EUMETSAT to invite at the next upcoming Forum countries, that have implemented climate services for any specific application, to share their experience in the implementation process and to describe the impacts on the respective service beneficiaries.

### **Recommendation #14** **Climate related projects**

The Forum recommended that climate related projects should support the implementation of regional and global targets, such as the integrated African Strategy on Meteorology (Climate and weather services), the Paris agreement, the African regional strategy for Disaster Risk Reduction and its programme of action, the Sendai Framework for disaster risk reduction, the draft Africa Climate Change strategy, the High level work programme on Climate Action in Africa, and the SDGs and agenda 2063.

## **MESA and GMES&Africa**

### **Recommendation #15** **Transition between MESA and GMES & Africa**

The Forum recommended AUC and EC to expedite the signature of the G&A agreement to ensure a smooth transition between the MESA and the GMES&Africa project, without gaps at regional level. The Forum also recommended AUC to expedite the setting up of the G&A regional Grants, and to ensure that the MESA achievement are consolidated, that the network already developed are strengthen and that they build on existing capacities and further strengthen the existing African expertise, institutional memory, systems organisation, etc., essential to a successful start and implementation of the GMES&Africa, and long term sustainability.

The Forum also recommended the AUC, in charge of implementing GMES&Africa, to ensure that all relevant AU departments are involved in the implementation and coordination of GMES&Africa, depending of the thematic areas.

Forum noted that G&S does not include weather and climate services. The Forum recommended to EC and ACP Secretariat to ensure that the MESA Climate Services achievement are consolidated and further strengthened as part of the GFCS ACP project to be formulated in the coming months.

### **Recommendation #16** **NMHSs involvement into MESA National Networks**

The Forum recommended the MESA RICs to consolidate the MESA national networks including optimal integration of NMHSs' technical, weather and climate expertise; so that countries are in a position to sustain these MESA national networks once the MESA project is finished.

**Recommendation #17**  
**In-situ data for validation of EO products**

The Forum recommended future projects to take into account the needs in validation of satellite products/services, in particular the in-situ equipments required for this validation.

**Recommendation #18**  
**Regional and National Services**

The Forum recommended to project such as MESA and SAWIDRA to fully take into account the national mandate of the NMHS notably in the area of issuing warnings. It therefore recommended to project implementation centre, with the support of AUC and AMCOMET, to involve NMHS in the project activities in order to ensure projects impact at national level, and to properly define boundaries between regional activities, and national mandates.

The Forum recommended NMHS to ensure that support from these projects to setting-up or strengthening national warning systems are sustained at national level.

The Forum also recommended the intra-ACP project Disaster Resilience for sub-Saharan Africa (coordinated by AUC) to ensure, in close coordination with SADC, that Comores can benefit from the SAWIDRA project.

**Recommendation #19**  
**Development tools for climate data sets**

The Forum recommends that future projects, such as GFCS ACP, related to Africa Climate services includes the development of tools to better distribute, disseminate, receive and interpret climate data sets.

**Training activities**

**Recommendation #20**  
**On-line training**

The Forum noted that the satellite online training tends to be aimed at a higher level of skill than what most participants have. The Forum recommended EUMETSAT and training partners to consider how to bridge this learning gap. This might include training local experts to support people to bridge the gap.

**Recommendation #21**  
**Integrated training**

Noting that (i) data sets are used in combination in the forecasting process; (ii) the requirement for more training on NWP and (iii) the existing training programs such as those facilitated by collaborating NMHSs, VLab and SWFDP, the Forum recommended WMO Secretariat to facilitate a process to enable the relevant parties to engage with each other and move to more integrated training, which must be practically focused.

**Recommendation #22**  
**Specialised training for NWP**

The Forum noted that the new technologies implemented within initiatives for the use of EPS meteorological satellite data in support to the production of numerical weather prevision (NWP), e.g. the SAWIDRA project, require a substantial update of African expertise. The Forum recommended AMCOMET, WMO and AUC, in the framework of their own mandate of capacity building, to rapidly put in place a specialised training programme (e.g., masters) involving African training centres, in close relationship with relevant international partners.

**Recommendation #23**  
**Copernicus Marine Products training**

The Forum noted the interest in the Copernicus marine data, and recommended EUMETSAT to facilitate access to Copernicus marine data and to provide training in the use of Copernicus marine products in both the English and French languages.

**Recommendation #24**  
**Climate SAF training**

The Forum noted the interest in Climate SAF, and recommended EUMETSAT, in close collaboration with the Regional training centres and Regional climate centres to provide training in the use of climate products in both the English and French languages.

**Space and Earth Observation**

**Recommendation #25**  
**African Space Strategy Implementation Plan and existing initiatives**

The Forum recommended to AU Space Working Group and AMCOMET Space Task Team to take into account, during the drafting and implementation of the African Space Strategy Implementation Plan, existing initiatives and projects such as RAIDEG, AfriGEOSS, MESA, GMES&Africa and SAWIDRA, in order to ensure technological and thematic coherence, in particular in the area of meteorology and climate, and optimise mutual benefits and synergies and ensuring contribution of Earth observation to development goals.

The Forum recommended that the plan ensure synergies between Earth observation initiatives and other continental priorities and programme (e.g. food security and PIDA).

**Recommendation #26**  
**EO data acquisition, dissemination and sharing**

The Forum recommended AUC, AMCOMET, WMO and GEO, in the framework of the African Space Policy and Strategy, to come up with a continental policy for the acquisition, dissemination and sharing of EO data and other in-situ relevant data.

### **Recommendation #27**

#### **Development of African-made added-value products**

The Forum noted that the current and the future EUMETSAT programmes (e.g. MTG, EPS-SG, etc.) would provide continuous satellite data coverage of African until 2040. This long-term perspective is also an opportunity for the user community in Africa to invest in the development of African-made derived added-value products, which will benefit all African countries. Such development should be made building on existing African regional and national capacities, in line with the Integrated African strategy on Meteorology and the African Space Policy and Strategy. The Forum therefore recommended AMCOMET Secretariat, its Space Task Team and AUC to further explore this possibility and report at the next EUMETSAT user Forum in Africa.

### **Other**

### **Recommendation #28**

#### **Participations to Fora**

The Forum recommended EUMETSAT, with the support of RIC and PR with WMO, to encourage Universities, other institutions, and users to take part in the next EUMETSAT User Forum in Africa and other relevant Forum (e.g. the MESA Forum) in order for them to share their experiences and requirements in using EO products.

### **Recommendation #29**

#### **Hydromet Africa programme**

Noting the opportunity provided by the Africa Hydromet Programme Framework, signed in June 2015 during WMO Congress-17 between the World Bank, African Development Bank and the WMO; the Forum recommended that the partnership make the necessary consultations to ensure that the needs of NMHSs and RCC are taken into consideration.