

Minutes of teleconference on the formation of the Africa Monsoon Working Group, 1600UTC 29 Feb 2016

Note that these minutes have been edited for public display to remove reference about persons not involved in the conversation, including speculation over possible membership.

Attendees

Serge Janicot, Francois Kamga, Francoise Guichard, Cathryn Birch, Paul Dirmeyer, Andy Turner, Ramesh Kripalani

Apologies

Alessandra Giannini

Agenda

Suitability of the ToR
Possible membership
Important regional issues
Possible activities in year 1-2
Regional funding opportunities

Minutes

Suitability of the ToR

While the Regional Monsoon Working Group ToR suggests listing activities for 3-5 years ahead, it is proposed that it is better to think in terms of 1-2 years ahead. An alternative view would be to consider what goals we want to reach in 3-5 years and how they can be achieved, outlining the necessary steps over the first three years.

- As with other Regional MWGs, the Africa group will have a role to play in coordinating existing activities.
- We also need to consider whether all objectives of the Regional MWGs as designed by the Monsoons Panel can be achieved.
- For Africa, we need to determine what benefits can be gained in the region by the Africa Regional MWG activities, and to what extent these benefits are shared between west, central, eastern and southern regions. The WG should work around 2-3 priority activities.

Possible membership

It is difficult to define membership. There is a need to span academic research and end users, as well as good regional coverage. Furthermore, time available, publication records, and leadership all need to be evaluated. As with other planned

Regional MWGs, active members who have the capacity to lead or coordinate activities are desired.

Example membership suggestions and task allocations from Serge Janicot are appended in Appendices A and B [removed].

Membership numbers are not fixed. The current suggestion includes 14, which may be too many to manage in the first instance.

Leadership is likely to be from Serge Janicot and Alessandra Giannini if possible, who will iterate with François and others to define the Regional MWG structure and goals.

[Sentence removed]

Cathryn suggested that clear expectation of roles of the Regional MWG members would be good, so that potential members can determine if they want to become involved.

Stakeholders including ACMAD and ICPAC have been included. However it is difficult to include impacts-specific members since impacts and regions are so widespread and diverse across Africa. Since Alessandra Giannini is based at IRI, there will be good connection to end users of climate forecasts. Contacts on the Africa Desk at NOAA could also be considered.

Important regional issues

Several issues were discussed and others provided offline. No order of importance is indicated here.

(1) Process-based metrics & users-based metrics for CMIP5 models evaluation

To what degree can in-country efforts be supported here? Can exchanges programmes be supported between Africa-based and foreign institutions?

- UK DFID Future Climate For Africa programme
- Land-atmosphere and high resolution modelling (convection-permitting)
- FP7 PREFACE, DACCIIWA, HELIX...

(2) Intraseasonal variability and prediction (including links between African regions)

Key questions and issues are:

- What is the state of present knowledge over Africa
- Is S2S (and similar tools) already being tested for Africa? MJO + 15-day (TIGGE, 30-60-day ECMWF forecasts...)
- Case studies: monsoon onset (high priority for end-users)
- Links with process-based and user-based metrics to improve these forecasts
- Develop a seamless “Ready-Set-Go” forecast chain (see IRI process)

Intraseasonal predictability is inevitably a priority, since very little work is being done. This encompasses evaluating forecast skill at intraseasonal time scales, at leads of 10-15 days. These time scales are critical in terms of end users and stakeholders. One component of this work is the impact of the MJO on West Africa.

This is important since MJO signals are clear (including east/west patterns in the Sahel).

As with other Regional MWG activities, the new S2S resource will benefit African monsoon science since it is a freely available dataset beyond the capability of what individual centres can produce themselves.

(3) Attribution of extreme climate events (WCRP Grand Challenges) & climate paradoxes (East and West Africa); uncertainty reduction under climate change

The so-called climate paradox is identified, whereby despite CMIP5 future projections for increased rainfall in East Africa, recent observations over the last couple of decades suggest declining rainfall. The drivers are likely to be a combination of greenhouse warming, aerosol forcing, land-use change and decadal variability; but determining the cause is challenging even outside of Africa. A similar attribution issue is raised about the recent partial rainfall recovery over West Africa.

Coordination work by the Africa Regional MWG could focus on the UK strategy ACE (Attribution of Climate-related Events) or other coordinated experiment as the WAMME programme.

For extreme events, it is noted that very few contributions to recent editions of the BAMS Climate Variability Attribution special issues (released annually) have been focused on Africa.

(4) Contribution to Climate Services

Climate services can be considered as a keyword for Africa, as it concerns both observation systems and environmental monitoring, research, modelling and forecasting, information systems, end-users platform and capacity building.

- Several possible contributions to climate services work have been identified
- Determining the current of on-going projects
- Defining end-user metrics with end-users (with support of the UK DFID FCFA structure)
- Case studies for demonstration (FCFA...)
- Training workshops (for example Handbook for forecasters in West Africa)
- Contribution to CORDEX-2 activities
- Newsletter: request for news (international projects, proposals, conference reports...), and production of a basic document summarising this for dissemination; interaction with the Monsoon Portal in order to disseminate information and help build a community of stakeholders and researchers. The Monsoon Portal should be complementary and not overlap with existing resources such as AfClix (led by Rosalind Cornforth).
- Links with Future Earth

(5) Observations

The Africa Regional MWG should also work to promote observations (e.g. in DACCWA) and for better interaction between observational and modelling research.

Possible activities in years 1-2

Membership knowledge of current activities

Those participating regard the state of current research as:

West Africa: Serge knows the field;

Central Africa: several young researchers are known in the region, particularly by François Kamga, a high research potential that need to be supported;

Eastern Africa: much less is known by those on the call;

Southern Africa: activities in this region are well known.

Activities

Initial spin-up activities could be:

- State-of-the-art report related to each priority regional issue;
- Support access to S2S data and initiate/coordinate works with academic and end-user groups;
- Training workshop for West Africa forecasters.

Serge Janicot has drafted a list of possible activities within the Africa Regional MWG along with allocation of potential task-owners. This is included here as Appendix B [removed]. This may work better with small teams allocated to each task. In addition a shorter list of initial tasks may be more appropriate.

Other activities to bear in mind for research collaborations

- *FCFA*: a very interesting and unique programme funded by UK DFID looking at different regions and a pan-Africa perspective (UMFULA, HyCRISTAL, AMMA-2050, FRACTAL, IMPALA);
- *PREFACE*: examining the oceanic Atlantic bias;
- *DACCIWA*: particularly interested in West African clouds and aerosols couplings.

Regional funding opportunities

CLIMDEV Africa platform, connecting researchers, end users and stakeholders

- We need to determine how the Regional WG can contribute to CLIMDEV and how financial support can be received. This would necessitate having activities led by a local organisation.
- CLIMDEV supports more than just meeting activities, but also dedicated research.

Other possibilities for funding include the Africa Bank of Development, the World Bank,..., but the way to get it is not clear.

See also national institutions and other international structures [IRD, DFID, IDRC Canada (similar to UK DFID), NOAA African Desk, START]

- See Arona Diedhiou, Cheikh Kane, and others for more information
- In the UK, further work could be done on lobbying DFID on activities to give similar opportunities such as HyVIC.
- Initiatives could also target UK NERC's strategic programme development, perhaps relating to East Africa. This could then generate new funding opportunities.

There may be training opportunities that can be developed via ICTP.

Actions

- Serge, Alessandra and François to contact potential membership and generate a group
- Serge, Alessandra, François, Cathryn and Françoise to convene a telecon (with ICMPO support if required) to determine WG leadership
- WG leadership to gather ideas and suggestions
- WG membership to define and initiate priority activities
- WG leadership to supply information on structure and activities to Monsoons Panel webpage or to inform Monsoons Portal.

Appendix A: Zeroth-order initial membership proposal for Africa Regional MWG (Serge Janicot)

[Table removed]

Appendix B: zeroth-order proposal of Africa Regional MWG tasks and associated involvement

General objective: Advancing understanding of monsoon variability and improving prediction

[Table removed]

Focus on:

- Linkages across scales
- Phenomena outside of classical monsoon research

Still supported by observations & modelling, but Focus on new methods & fresh perspectives:

- Enhanced monitoring
- Advanced diagnostics efforts
- Improvement of components and coupled models.

That means:

- New and better process studies
- Coordination of relevant modelling efforts including Climate Change
- Empowering the next generation of bright young scientists.