

Report of the Discussions from the Final Day of the Joint WASCAL-ICTP Hands-on workshop on HPC technology for Climate Sciences

Moderator: Dr. Kanmi Adewara

The meeting commenced officially at 9:15 a.m with Prof. Clement Onime welcoming all participants. Afterwards, feedback on the program was taken from participants: Most participants commended the organizers and resource persons of the training, highlighting the possible benefits of the training to advancing research and scientific network across the continent. Prof. Ogunjobi suggested anonymous (blind) feedback to obtain objective responses from all participants. Mr. Joel Gogwin supported this suggestion.

Dr Diallo recalls the objective of the session and it particular highlight the fact that at the end of this we should be able to come out with a proper plan and organisation structure to lead the community.

Feedback from participants about the workshop

Joshua Fafanyo Dzrobi	Appreciation to the event organisers
Chistriane Coulibaly	Appreciation to the event organisers
Dr Ahmadou Coulibaly (Scientific coordinator of WASCAL MALI)	Appreciation to the event organisers
Dr Oluseyi Akinola (online)	Appreciated the opportunity given, especially to the youth, to participate in this workshop. He was also excited that the training was organised in Africa.
Dr Ahmed Bello (online)	Extended appreciation to all WASCAL CoC and ICTP for organising the workshop and urged for the sustenance of the initiative. He requested that the recordings from both rooms be made available to all participants for self-study.
Mr Ajayi Biodun	Appreciated the team (WASCAL CoC and ICTP) for the excellent support throughout the training period.
Mr David (PhD student at WASCAL MALI)	Appreciation to the team of WASCAL COC and resource persons. He gained more than his expectation.
Dr. Vincent Ajayi (online)	Congratulated all organisers.
Dr. Guillaume Macoulma (Technical Director - ANAM)	Thanked WASCAL for the good collaboration. He also indicated that ANAM currently has 3 PhD students (2 have already graduated) from WASCAL working with their institution.

COC : Competence Centre

ICTP : International Centre for Theoretical Physics

WASCAL : West African Science Service Center on Climate and Aadapted Land Use

Dr Dama Geuye	Extended his appreciation to the event organisers
Dr Joel ADEWARA	Extended his appreciation to the event organisers and the energy put in.

Discussions on Future Editions and Continuous Collaboration

(Creation of Communities of Practice for HPC Admins and HPC Users)

Suggestions from the participants, both in-person and online, have been tabulated below.

Mr Biodun Ajayi	<p>He can support by driving traffic around the activities done over the two weeks.</p> <ul style="list-style-type: none"> - Develop an online form for request of WASCAL data (This process needs optimization and must be accelerated) - Schedule a regular meeting (can be online format) to discuss progress and best practices - Provide more communication around the development (HPC set-up and operationalization) at ANAM. - The need for impact-based research, via co-production so that the involved community will be able to take responsibility for the implementation of the research findings (eg. Early Warning System) and its sustenance. - Urge for applied sciences. Involvement of other technical experts (eg. engineers) on project development and deployment.
Mr David Abiolad AKODEKOU	<ul style="list-style-type: none"> - Suggested that more information be provided on the process of running the model. Also, he requested that participants be given the chance to explore other scenarios using the model, and over more recent years. - Suggested that we use the ICTP online chat platform (Matrix/Element) to sustain communication - Requested a top-up training to build on what they have just learnt.
Dr Vincent Ajayi	<ul style="list-style-type: none"> - Capacity building in the region and follow-up program strictly dedicated to: <ul style="list-style-type: none"> o HPC administrators (preferably physically) – emphasized that more attention needs to be given in this field. o Climate modelling users <p>WASCAL and ICTP can work collaboratively to lead this drive.</p>

COC : Competence Centre

ICTP : International Centre for Theoretical Physics

WASCAL : West African Science Service Center on Climate and Aadapted Land Use

<p>Dr Coulibaly (Scientific coordinator of WASCAL Agric)</p>	<ul style="list-style-type: none"> - He lamented how WASCAL GRP students tend to lack German (international) supervisors for their projects, limiting their access to HPC facilities. He, however, commended the WASCAL CoC for the acquisition of the HPC facility, which will be an alternative to support student research and training.
<p>Dr. Guillaume Macoulma (Technical Director ANAM)) -</p>	<p>He focused on the relationship of WASCAL and National Meteorological and Hydrological Services (NMHs).</p> <ul style="list-style-type: none"> - NMHs initially were seeing WASCAL as a competitor in the region, but through this training, ANAM has a new perspective of their respective roles and how it links with that of WASCAL CoC. - WASCAL COC has a lot of potential, skills and can support NMHs in various aspects - Two-way feedback from WASCAL and ANAM, where students -upon data reception for their research- communicate their findings also to ANAM to improve their services. - WASCAL should improve its visibility and communication channels for its services, especially to NMHs and the general public. Most NMHs can benefit from WASCAL, however, these agencies do not know that WASCAL can offer training and other services (eg. modelling). - Data Management: How can WASCAL support NMHs financially as a commitment to facilitate data-sharing and swift data release from the NMHs to WASCAL. <p>Right feedback of Dr. Seyni Salack (team WASCAL):</p> <ul style="list-style-type: none"> - WASCAL, through various projects, is thinking of including a budget for Operation & Maintenance for Stations networks in future projects.
<p>Dr Salack Seyni</p>	<p>He also suggested, by way of question to Prof. Onime and Ogunjobi the need to regularly organize this event as a way of improving critical mass?</p> <ul style="list-style-type: none"> - A mailing list can be created from the list of participants and forum to be maintained – WASCAL data manager can take the leadership to push this - The participants of this current training can serve as the first members of this forum/initiative.
<p>Dr Dama Geuye</p>	<ul style="list-style-type: none"> - It will be more interesting for him and other virtual participants to do this training physically, to engage the resources and the resource persons for clarity and skill development.

COC : Competence Centre

ICTP : International Centre for Theoretical Physics

WASCAL : West African Science Service Center on Climate and Aadapted Land Use

Dr Joel Gogwin	<ul style="list-style-type: none"> - Suggested WASCAL finds ways to expand its footprint to other countries in the sub-region. - Suggested that WASCAL works on applied research studies that have strong benefits for the continent. WASCAL must lead the way in ensuring that research findings solve problems and that these solutions must be implemented. - Encouraged participants to serve as ambassadors of the skill provided by WASCAL and ICTP by promoting what they learnt during the workshop (<i>we know more by practising</i>) - Suggested that this event be regularly organized.
Prof Kehinde OGUNJOBI	<p>Suggest to the participants, with a final word, to continue to build on the lessons learnt from here.</p> <ul style="list-style-type: none"> - Welcome the development of a platform for the community to share experience, codes, etc. - Assured that WASCAL and ICTP will work strongly to sustain the organization of this event - Recall the aim of this event is to bring NMHs to collaborate with WASCAL. The NMHs and WASCAL must understand that their work is complementary and not a competition. The more they collaborate, the better both parties grow. This isn't just a resolve of WASCAL and NMHs, but it must be the same for NMHs and other partnering institutions (e.g., Universities). - Thanked ANAM for taking the initiative to work closely with WASCAL and academic institutions. - WASCAL and NMHs can go for international calls for the development of projects and research as well. - WASCAL is discussing with the funder to possibly provide minimum support in maintenance of donated WASCAL facilities to NMHs, and also -if possible- other facilities of NMHs in the region. - WASCAL is still looking for ways to tackle the issue of station maintenance (for instance looking at how part of the WASCAL students' budget can be put aside for the Met stations maintenance)
Dr Diallo	<ul style="list-style-type: none"> - A form is been prepared for login credentials and data request. - The link of the recording will also be shared.
Prof Clement	<ul style="list-style-type: none"> - Incorporate in the DRP program, courses on HPC and Modelling <ul style="list-style-type: none"> – It can take the form of a practical session. This doesn't necessarily change the curriculum. It rather serves as an add-on to the existing curriculum.

COC : Competence Centre

ICTP : International Centre for Theoretical Physics

WASCAL : West African Science Service Center on Climate and Aadapted Land Use

	<ul style="list-style-type: none"> - He highlighted the electricity issue in the region, which is critical, and the need for an uninterrupted power supply. - Proposed that WASCAL organises a workshop on maintenance and best management practices of stations and HPC facilities. This program can also be rotated by country to strengthen the community and its interactions. - Urged participants to find support from their institutions to attend such pieces of training. <p>How to sustain the forum:</p> <ul style="list-style-type: none"> - State clear objectives going forward for the group to guide the next steps and meeting schedules. - Create a regular monthly meeting. A monthly zoom call combined with the matrix chart could suffice. Participants could share their experiences within such meetings, which ought to be time-bound and apt. - One target could be how to get ANAM's HPC running in a month. Participants can contribute to this process, as this will help keep them still active. - Besides the community and its ambassadors (team leads), Prof. Ogunjobi could serve as an HPC Champion. -
Mr Albert (Online)	<p>Would wish to know</p> <ol style="list-style-type: none"> 1. If the login details will still be available to us <p><i>Response from Dr. Diallo: WASCAL CoC is currently working on a request form for users of their facility to make such requests.</i></p> <ol style="list-style-type: none"> 2. Can scripts on all practical sessions be made available to us as one time practice may not be enough to get us all experienced. 3. Been wondering how do we switch from one RegCM (CMIP6 to CORDEX) data. How do we get these data to use in our specific research? If basic scripts could made available to us I think it will go a long way to help us. <p><i>Response from Dr. Diallo: Powerpoints could be shared by the resource persons. He also indicated that the recordings can be shared.</i></p>
Dr Oluseyi Akinola (online)	<ul style="list-style-type: none"> - Suggested that WASCAL creates an operational Manual for its HPC usage.

COC : Competence Centre

ICTP : International Centre for Theoretical Physics

WASCAL : West African Science Service Center on Climate and Aadapted Land Use

	<ul style="list-style-type: none"> - A tracking system for the accountability of the use of the HPC resource (publications, etc..)
Dr kanmi ADEWARA (Moderator)	<ul style="list-style-type: none"> - Urged participants to play a role in disseminating what has been learnt and take actions on applying the knowledge acquired
Group agreement	<ul style="list-style-type: none"> - Regular monthly zoom meeting - 40 minutes with clear agenda sent earlier - A steering committee (Mr Ivan, WASCAL-CoC and Dr Kanmi ADEWARA, OAU, Nigeria) to decide on the first meeting date and time, not later than Monday, 13th May 2022. <p>Institutions with HPC that the community can support</p> <ul style="list-style-type: none"> - ANAM - Agence National de Meteorologie, Burkina Faso - UI - University of Ibadan, Nigeria - FUTA - Federal University of Akure, Nigeria - OAU - Obafemi Awolowo University, Nigeria - UFHB - University of Felix Houphouët-Boigny, Côte d’ivoire <p>Community Team-Leads:</p> <p>System Administrator Group</p> <ul style="list-style-type: none"> - Mr David adedoyin - Mr Meda Symphorien - Dr. Jeffrey N. A. Aryee <p>Climate Modelling Group</p> <ul style="list-style-type: none"> - Dr. Windmanagda Sawadogo - Dr. Oluseyi Akinola - Dr. Ahmadou Coulibaly

Rapporteurs:

- Chistriane Coulibaly , WASCAL Msc Informatics for Climate Change, Burkina-Faso
- Thierry ODOU, WASCAL DRP Climate Change and Energy, Niger
- Dr. Jeffrey N. A. Aryee, Dep’t of Meteorology and Climate Science, KNUST, Ghana

COC : Competence Centre

ICTP : International Centre for Theoretical Physics

WASCAL : West African Science Service Center on Climate and Aadapted Land Use