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Dear Valuable stakeholder,

I am delighted and grateful for a progressive 2023 year. The Southern African Science Service Centre for Climate Change and Adaptive Land Management (SASSCAL) has accomplished several milestones. As we reflect on this transformational year, I am pleased to share with you the remarkable achievements that define our collective journey at SASSCAL.

In an era faced with unprecedented challenges, our commitment to advancing climate science and fostering regional and international collaborations and partnerships has blossomed.

In this issue, we highlight SASSCAL achievements from August to December 2023, focusing on the SASSCAL Council of Ministers’ strategy to expand SASSCAL’s membership to all SADC countries in the region. Moreover, SASSCAL's Climate Dialogues Series has expanded to in all member states. The Dialogues provide a platform for the scientific community, policymakers, and stakeholders to discuss complex challenges from climate change and seek solutions to mitigate them.

SASSCAL deployed extensive marketing to increase SASSCAL’s visibility in the region. The visibility actions include exhibitions, workshops, media interviews, articles in the website and print media. In addition, SASSCAL participated in several discussions at the Africa Climate Summit in Kenya on the importance of investing in and collaborating with Africa’s regional organizations to realize the ambitions of the African Union Climate Change and Resilient Development Strategy and Action Plan for 2022-2032.

SASSCAL prioritizes youth capacity building and this year, SASSCAL staff has dedicated its time and resources to conduct a nationwide outreach across Namibia for its Youth for Green Hydrogen (Y4H2) Scholarship program, where it got an overwhelming response of 4363 applications and awarded 90 learners to pursue their studies in Master’s degree and TVET courses.

Through the GMES & Africa Programme, SASSCAL has conducted online training on Google Earth Engine, Cloud-computing, and Earth Observation that accommodated about 50 participants. Moreover, SASSCAL participated in the first GMES & Africa Phase II Continental Forum to showcase its products and services and celebrate its achievements for the WeMAST Phase II project.

To round up the year, SASSCAL held its annual team-building exercise, which was meant to foster collaboration and unity amongst staff members, enhance communication and collaboration skills, promote and improve teamwork and productivity, and reward staff for their dedication and hard work during the year.

Above all, I would like to thank all our stakeholders for their unwavering support and collaboration towards strengthening SASSCAL’s ability to deliver on its mandates.
GOVERNANCE ISSUES

SASSCAL COUNCIL OF MINISTERS REITERATES THE DECISION TO EXPAND SASSCAL MEMBERSHIP TO ALL SADC COUNTRIES

SASSCAL has reiterated its decision to expand SASSCAL membership to all SADC countries, during the 3rd Ordinary Council of Ministers meeting held on 19 September 2023 in Luanda, Angola. The host and Chairperson of the Council of Ministers, Hon. Maria do Rosario Bragança (Angola), highlighted SASSCAL’s relevance in the region and its consolidation of the present and future developments on human capacity, scientific and technological potential. She emphasised the need for the institution to be creative and innovative in response to current and future challenges of climate change.

The meeting was attended by Hon. Anna Shiweda the Deputy Minister, representing Hon. Minister, Calle Schlettwein, Ministry of Agriculture, Water and Land Reform Namibia), Honourable Minister and WASCAL Council Chair Hon Prof. Bouréma Kansaye, Mr. Boatametse Modukanele, Permanent Secretary (representing Honourable Minister Philda Kereng, Ministry of Environment and Tourism Botswana), Mrs. Jane Chinkusu, SASSCAL Board Member (representing Hon. Minister Felix Mutati, Ministry of Technology and Science, Zambia), Mr. Imran Patel, Director General for International Cooperation and Resources (representing Hon. Minister Blade Nzimande, Ministry of Science and Innovation, South Africa).

Angola delegates included Minister Hon. Mário Augusto da Silva Oliveira, Ministry of IT and Social Communication, Hon. Eugénio Alves da Silva, State Secretary, Ministry of Higher Education, Science,

Other participants included the Chairperson and Vice-Chairperson of SASSCAL Governing Board, SADC representatives, and SASSCAL Executive Director and staff.

In the proceedings, a statement read on behalf of Hon Philda Kereng, Council of Ministers Vice Chairperson, Mr. Boatametse Modukanele acknowledged SASSCAL’s relevance to Botswana’s climate change research agenda with the support of the German government. Botswana assured the meeting that the process for ratification of the Treaty had commenced.

An address by Hon Shiweda, Deputy Minister of Agriculture, Water and Land Reform, pointed out that member states and the funder should continue harnessing, supporting, and strengthening the governance of SASSCAL, considering that climate change remains a reality and continues to have negative impacts on the environment, social and economic sectors on SADC countries. She stated the importance of partnership and SASSCAL’s integration in the SADC and AU agenda in science, land, and advancement of human capacity development. Hon Shiweda reiterated Namibia’s commitment and dedication towards the success of SASSCAL and commended the commitment and contribution of other member states towards the achievement of SASSCAL’s objectives. She requested member states to fast-track the ratification of the Treaty as well as honouring country contributions.

A statement by Mrs. Jane Chinkusu read on behalf of Hon. Felix Mutati (Minister of Technology and Science) expressed the need for member states to put more effort into attracting financing. She alluded that climate change knows no boundaries, and equally affects both developed and developing countries. This awareness underlines the important role of SASSCAL, particularly in the provision of evidence-based platforms for decision-making. She reiterated Zambia’s commitment to country contributions and ratification of the Treaty.

WASCAL Council Chairperson, Hon. Bourema Kansaye in his statement expressed gratitude for the excellent relations SASSCAL and WASCAL fostered, and the remarkable successes achieved through the partnership with BMBF, expressing that the sister organizations are having a definite impact on decision-makers’ understanding of the environmental threat facing countries. He urged the organizations to adopt ambitious climate diplomacy because climate change is a global problem that requires a global solution. Hon Kansaye highlighted the importance of sharing best practices that will benefit Africa at large.

SADC-CCARDESA Board Chairperson, Prof Razafinjara Lala, on the other hand, assured his support to SASSCAL’s programmes in the region through the integration of SADC-CCARDESA’s programmes.

“Member states and the funder should continue harnessing, supporting, and strengthening the governance of SASSCAL, considering that climate change remains a reality and continues to have negative impacts on the environment, social and economic sectors on SADC countries.”

- says Hon Shiweda, Deputy Minister of Agriculture, Water and Land Reform
ASSCAL Executive Director, Dr Jane Olwoch, in her presentation, highlighted SASSCAL's current achievements in research management, services and products, and capacity development. Dr. Olwoch outlined SASSCAL's projects such as the H2Atlas Africa phase 2, JCoI Coordination project, WeMAST, and InTeCRees as well as SASSCAL programs from 2023 to 2025 and overall challenges affecting the institution.

The key outcomes from the meeting of the Council of Ministers include the election of Botswana as Chairperson and Namibia as Vice Chairperson of the Council of Ministers for 2 years. The Council also considered the expansion of SASSCAL’s footprint in the SADC region.
SASSCAL’s Council of Ministers paid a courtesy call to the Vice President of the Republic of Angola, H.E. Esperança Maria Eduardo Francisco da Costa led by the Council’s Chairperson, Hon Maria do Rosario Bragança. During the visit, the Vice President emphasized the commitment of the Angolan Government in the fight against climate change and pledged to support SASSCAL in its endeavours to expand its membership in the SADC region.
Deputy Minister of Agriculture, Water, and Land Reform, Honourable Anna Shiweda has commended SASSCAL for championing and tapping into the renewable energy space through the Green Hydrogen programme. In her address, she commended SASSCAL for pioneering renewable energy projects, especially in Green Hydrogen. SASSCAL has extended its borders from five countries to 12 SADC countries by identifying Green Hydrogen hotspots in the region through the production of the Green Hydrogen Atlas.

In support of the Joint Communique of Intent between Namibia and Germany signed in 2021, SASSCAL is also overseeing the establishment of the first Green Hydrogen Village in Africa the Daures Green Hydrogen Village. This is another historical milestone worth mentioning. The introduction and the successful implementation of the Youth for Green Hydrogen Scholarships Programme stands as another commendable achievement that we are so grateful for as this will give opportunities to many of our young people.

Hon. Anna Shiweda said this when she officiated the SASSCAL Climate Dialogue co-hosted with the Ministry of Environment, Forestry, and Tourism on 21 and 22 November 2023 in Windhoek.

The Namibia Climate Change Dialogue provided a unique platform that brought the scientific community, policymakers, and youth together to discuss key challenges of climate change in the country and within the region to engage participants in high-level structures to reflect on the national agenda at COP 28 and to deliberate on climate-related issues within Namibia and other SASSCAL countries.

Honourable Anna Shiweda has commended SASSCAL for championing and tapping into the renewable energy space through the Green Hydrogen programme.
Deputy Minister of Agriculture, Water and Land Reform, Honourable Anna Shiweda, deliver her impactful keynote address.

Dr Tjitunga Elijah Ngurare, SASSCAL Board Vice Chairperson in his welcoming remarks noted that the world grapples with the effects of climate change, and Namibia is not exempted. “It does not require rocket science to notice that changes in rainfall patterns, heat waves and other strange weather phenomena are clear signs that the climate is changing. This has been a reality and as a country, we have seen these drastic effects that keep impacting on our communities,” he remarked.
Meanwhile, SASSCAL Executive Director, Dr Jane Olwoch explained that the idea behind the Climate Change Dialogues is to create a platform where the region reflects on “our journey with climate change response and remind one another that without a collective action our response will be limited.”

Dr Olwoch reiterated that climate change in Southern Africa is hitting at household level, more so that the United Nations Secretary-General last year labelled it a Red Code to Humanity at a global level.

“One wonders what code SADC should have in view of the fact that it is projected to be even hotter and drier in comparison with some other regions in Africa that might be hotter but wetter,” the SASSCAL Executive Director said, adding that SADC predictions are that the region could experience the kind of environment never seen before.

“Could this be the challenge in finding a collective response? Some areas may even benefit from climate change. How then does one bring a consensus on action. We must therefore dialogue with facts on knowledge of the kind of code our region should carry. If indeed the world carries RED CODE, what code does SADC carry,” she quizzed.
The dialogue further deliberated on the Multilateral Environmental Agreements within the United Nations Framework Convention on Climate Change (UNFCCC), Climate Change Research and Socio-Economic Development, SASSCAL’s contribution to the research landscape on climate change through data and services, and advocating youth for Climate Change Science and Innovations.

Additionally, presentations on the Dam and Reservoir Atlas for Southern Africa (DRASA), the current water systems that support dam management and operational activities in Namibia were made, demonstrating and spotlighting SASSCAL’s Products and Services, the WEMAST Project and the Geoportal.

A lot of young people attended the dialogue and benefited from a series of panel discussions. These covered critical topics like “Fostering and Nurturing Namibian Youth for Climate Change: Action-Shaping the Future of Tomorrow,” “New Research as a Foundation to Support Mitigations and Adaptation,” “Partnership in Research Capacity Development: Postgraduate Studies and Funding Opportunities,” and “National Policy and the Road to COP 28.”

During the dialogue, the SGSP-IWRM also held a poster exhibition on their study areas.

BOTSWANA NODE EXTENDS A WARM WELCOME TO THE GERMAN AMBASSADOR TO BOTSWANA

On the 24th of October, the SASSCAL Botswana Node office had the honour of welcoming Her Excellency Margot Hellwig-Boette, the German Ambassador to Botswana. The visit marked a significant moment to express gratitude for the ambassador’s continuous support of SASSCAL and to showcase the impactful work of SASSCAL in the region.

Dr Jane Olwoch, the Executive Director of SASSCAL, delivered a comprehensive presentation outlining the organization’s value proposition, emphasizing key projects such as the Open Access Data Centre (OADC), DRASA (Dams and Reservoir Atlas for Southern Africa), WeatherNet/AWS proposal, green hydrogen atlas, and green ammonia proposal. Dr Olwoch underscored the tangible contributions SASSCAL makes to climate change adaptation and sustainable development.

A significant focus of the discussion was Botswana’s designation as a future Centre of Excellence in Biodiversity and Ecosystem Health. Dr. Olwoch emphasized the importance of securing funding to actualize this initiative, which holds immense potential for advancing biodiversity conservation and research in the region. H.E. Ambassador Hellwig-Boette commended SASSCAL’s efforts and acknowledged the strong alignment between the organization’s work and the upcoming Conference on Climate Change and Pandemic Preparedness. She aptly pointed out the critical link between public health and environmental change, highlighting the pressing need for collaborative action.

This insightful exchange culminated in a productive two-day workshop, convened by H.E. Ambassador Hellwig-Boette, bringing together key stakeholders. The workshop focused on addressing the critical need for a dedicated Climate and Health Programme. Dr. Olwoch enthusiastically embraced this initiative and conveyed steadfast dedication to advancing discussions and collaborating with partners to bring this crucial program to fruition.

The visit by H.E. Ambassador Hellwig-Boette catalyzed deeper collaboration and reaffirmed the shared commitment of SASSCAL and Germany to tackling the complex challenges of climate change and ensuring the well-being of communities in Botswana and beyond.

Captured during the visit is Ms. Moagi from the Department of Meteorological Services, Her Excellency Margit Hellwig-Boette, the German Ambassador to Botswana and Dr Jane Olwoch, SASSCAL Executive Director.
In a dazzling display of climate change and adaptive land management programmes and services, the Southern African Science Service Centre for Climate Change and Adaptive Land Management walked away with a prestigious bronze award for indoor category from the Windhoek Show Society (WSS).

STAKEHOLDER ENGAGEMENT

SASSCAL TRIUMPHS WITH BRONZE AWARD AT THE WINDHOEK AGRICULTURAL SHOWGROUNDS IN NAMIBIA

The award recognized SASSCAL for its exceptional setup and information sharing of its mandate in strengthening the regional capacity to generate and use scientific knowledge products and services for decision making on climate change and adaptive land management in Southern Africa.
SASSCAL’s Namibian Node Office spearheaded this exhibition from the 23rd to the 30th of September 2023, in Windhoek, Namibia to demonstrate its commitment as well as strengthen and elevate the visibility of SASSCAL’s brand, with a primary focus in showcasing and creating awareness of climate change, research products and services, unveiling capacity development programs, presenting key projects such as Green Hydrogen, H2ATLAS-Africa, SGSP-IWRM, and WeMAST. The SASSCAL exhibition stall attracted an estimated crowd of over 300 visitors daily keen to learn about SASSCAL’s research initiatives on climate change and the Green Hydrogen Scholarship programme for youth.

During the exhibition, SASSCAL was graced with a visit from Ms. Bertchen Kohrs, the Chairperson of EarthLife Namibia, an institution that has collaborated with SASSCAL as a research associate from the University of Hamburg.

The Windhoek Agricultural Showgrounds which saw over 200 exhibitors is an event that served as a notable platform for fostering awareness and collaborations between stakeholders of which SASSCAL saw as an opportunity to provide comprehensive knowledge about its products and services and to give feedback to stakeholder’s queries about SASSCAL’s contributions in Namibia and Africa at large.
Additionally, he acknowledged the increasing global concerns over food security, water scarcity and the effects of climate change is a significant challenge for Zambia and assured the public that his government provides the necessary support and incentives to facilitate the growth of the agricultural sector and allied industries.

“Our commitment lies in fully transforming agriculture and its related ecosystem into profitable business ventures, benefiting our farmers and other in the value chain” – His Excellency, Mr. Hakainde Hichilema.
In line with the shared goals of the government of the Republic of Zambia, Southern African Science Service Centre for Climate Change and Adaptive Land Management (SASSCAL) through its Zambia Node office allies and is committed to utilizing research and innovative products and services for climate change and adaptive land management to contribute to the efforts towards addressing critical issues and provide decision makers with sustainable solutions for agricultural growth.

Zambia’s 95th Agricultural & Commercial Show attracted over 1300 organizations which provided SASSCAL a great platform to showcase its products and services, sensitize the public on SASSCAL’s activities in Zambia, promote its brand as well as network with national scientists, institutions, students, community, and policy makers with the aim to collaborate on research projects of interest to contribute to national development.

Hon. Minister Felix Mutati (wearing a black cap) from the Ministry of Technology and Science (MoTS) visiting SASSCAL and National Remote Sensing (NRS) stand.
SASSCAL UNVEILS INNOVATIVE PRODUCTS AND SERVICES AT THE 7TH AFRI-GEÔ SYMPOSIUM FOR EARTH OBSERVATION IN PURSUIT OF AFRICA'S PROSPERITY

Southern African Science Services Centre for Climate Change and Adaptive Management (SASSCAL) participated in the 7th AfriGeo Symposium, co-hosted by the Ministry of Higher Education, Technology, and Innovation (MHETI), and the National Commission on Research, Science and Technology (NCRST) from the 18th to the 23rd of September 2023 in Swakopmund, Namibia.

The symposium that hosted over 130 participants inclusive of policy makers, earth science professionals, academics, and private sector from across Africa, created a platform for the AfriGeo community to create awareness on the ongoing activities, engage, connect, and build meaningful areas of collaborations in addressing varied developmental challenges in Africa using Earth Observation (EO) for Africa's prosperity.

Objectives of AfriGeo Symposium:
• Strengthen connection with the current GEO Principals in national government agencies in Africa.
• Increase uptake of EO in Africa through the promotion of long-term Human Capital Development programs.
• Facilitate and drive programmes towards achieving the Global, RECs and Africa wide goals and objectives i.e., AU Agenda 2063, 2030 Agenda or Sustainability Development, the Sendai Framework for Disaster Risk Reduction, and the Paris Climate Agreement.
• Support international collaboration by connecting national and regional institutions and programmes with GEO and foster creation of synergies to reduce duplication of efforts across Africa; and
• Develop a strategy of access and dissemination of EO data and information through outreaches, user engagement and mobilization of resources.

Additionally, AfriGeo held pre-symposium training sessions conducted by esteemed organizations such as Environmental Systems Research Institute, Inc (ESRI), Digital Earth Africa, GEO Land Degradation Neutrality Flagship (GEO-LDN), and CBAS from the 18th to the 19th of September 2023 and conducted 10 insightful sessions detailed below with their outcomes:
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<tr>
<th>Sessions Description</th>
<th>Achievements/ Outcomes</th>
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<tr>
<td><strong>Session 1: Integrated Decision Making</strong>&lt;br&gt;This session outlined the utilization of Earth Observation, citizen science, indigenous and socio-economic knowledge in addressing some of the most complex societal problems such as climate change, biodiversity loss and pollution.</td>
<td>This session demonstrated that Earth Observation is a value proposition for integration solution as well as enhances cross sector collaborations.</td>
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<td><strong>Session 2: Namibia development challenges and solutions offered.</strong>&lt;br&gt;This session highlighted challenges experienced in Namibia and the solutions offered by different stakeholders in addressing these challenges.</td>
<td>It has been observed that there are gaps and opportunities for engagement in Namibia between stakeholders to find solutions.</td>
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<td><strong>Session 3: Earth Observation for grassroot service delivery</strong>&lt;br&gt;This session explored service providers that support end to end value chain solutions linking EO to the end user, and particularly, the end user who may not necessarily understand EO but can derive vital and reliable information from it to enhance their likelihoods, access to markets, make better decisions around investment and become more resilient to the impacts of climate change.</td>
<td>It was resolved that this enhances EO value chain.</td>
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<td><strong>Session 4: Strengthening National Coordination</strong>&lt;br&gt;This session advocated for countries to set up their national coordination mechanisms, building of cases from countries that already set up their structures to those that are in the process and those that may be enticed to start. The National GEOs are seen as critical vessels to support open science, open knowledge, and enhance data and knowledge sharing while at the same time supporting the implementation of National agendas aligned to the GEO post 2025 strategy.</td>
<td>This will assist with data democratization, reduced duplication and strengthened collaborations.</td>
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<td><strong>Session 5: Youth session</strong>&lt;br&gt;SSA targeting the youth to drive EO is critical to transformational impact. This session looked to enhance and solve challenges faced by the youth in engaging in EO dialogues, the ways in which they are engaging and how they can be utilized to be part of the solution going forward.</td>
<td>It was resolved that there needs to be youth inclusion in EO value chains and the need for youth more engagement and mentorship.</td>
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### Session 6: Nature based solutions.

This session addressed the ways in which EO is utilized to support conservation and restoration efforts through ecosystem-based approaches for mitigation and adaptation.

EO is crucial for a sustainable restoration of our environment, for the conservation and reduction of biodiversity loss and assist with the scalability of solutions.

### Session 7: Data & Infrastructure

This session outlined existing infrastructure, barriers to data sharing, best case scenarios of data access, and where we need to be going as Africa.

The session summarized data democratization, data access and sharing policies and frameworks. Additionally, it increased discoverability of existing EO content and connecting the geospatial community.

### Session 8: Strengthening Human Capital in Africa

This session outlined successful capacity building regional program, and discussed barriers to capacity retention, its use and how these can be addressed at regional and national scales.

It was resolved that there is a need to strengthen human capital programs (Regional and National) and come up with the best approach to capacity development.

### Session 9: Awareness Podium

This session was designed for participating stakeholders to create awareness of their services, data, tools, cutting edge technology by linking public and private sectors practitioners.

Participating institutions created awareness about their products and services and strengthened collaborations.

### Session 10: GMES & Africa in the heart of the game

This session was aimed to illuminate the transformative power of the GMES & Africa program.

It unveiled how African experts, in collaboration with European partners, harness Earth Observation data to create operational information services that drive sustainable resource management and climate resilience. Furthermore, it informed attendees about the program’s dynamic offerings, encompassing EO-based technology and capacity building, and how it aligned with the specific needs of the African continent.

This session heightened Awareness: participants gain insights into the breadth of GMES & Africa’s operational services, fostering a deeper understanding of their potential.

Evolving Needs: Stimulated new demands for GMES & Africa services by showcasing their relevance to resource management and climate adaptation.

Collaborative Synergies: Explored partnership possibilities with relevant programs, amplifying the impact of GMES & Africa across Africa.

Participants at the symposium included representatives from the African Union, GMES and Africa, Ministry of Higher Education, Technology, and Innovation Namibia, SASSCAL, National Commission on Research Science and Technology, Group on Earth Observations, South Africa’s Department of Science and Innovation, Regional Centre for Mapping of Resources for Development, Land Degradation Neutrality, Digital Earth Africa, among various other esteemed institutions.
The SASSCAL Botswana Node held a two days’ workshop on the 8th and 9th of 2023 August in Ghanzi, Botswana.

The workshop convened 51 participants, including village leaders, academics, and representatives from local trusts, NGOs, and government departments, aiming to acquire knowledge and skills to boost agricultural productivity and biodiversity conservation. Prof. Richard Fynn from the Okavango Research Institute (ORI) and Dr. Lawrence Akanyang from Botswana University of Agriculture and Natural Resources (BUAN) led sessions on effective conservation strategies to mitigate the adverse effects of climate change on biodiversity and agriculture, highlighting practical solutions like split paddocking. Whereas the representatives from the respective government departments, e.g., the Department of Environmental Affairs and the Department of National Monuments and Museum addressed the importance of biodiversity conservation in response to climate change.

On the other hand, the keynote speaker, Mr. David Lesolle, a climate expert, explained tipping points and their implications for climate change adaptation. This sparked an interactive discussion with various trusts and farming communities about their experiences and vulnerabilities related to climate change.

Notably, both arable and pastoral farmers highlighted erratic rainfall as a major challenge affecting their production. A preliminary report outlining these insights has been drafted, aiming to inform future interventions and policy decisions to transform agricultural productivity in the Ghanzi district while building resilience to climate change.

Moreover, it is to be reported that local community Trusts are dependent on the biodiversity of the area for livelihood activities such as hunting, beadwork, and weaving. However, these communities are faced with decline in these resources due to erratic rainfall and rising temperatures. Lastly, the significance of the workshop was highlighted by its coverage in a segment on Botswana Television.
SASSCAL BOTSWANA NODE SECURES 1ST PLACE AWARD AT THE GABORONE NATIONAL AGRICULTURAL SHOW EXHIBITION

The Botswana Node was awarded first position for exhibitor with Government affiliation at the 2023 National Agricultural Show, that took place from 22 to 26 August 2023 under the theme “Enhancing Agricultural Productivity by Utilizing Technology”.

First Prize Award for the Botswana Node for Government Affiliation.
This was done in efforts to enhance SASSCAL’s visibility in Botswana by showcasing its research program, products, and services such as the Open Access Data Centre (OADC), SASSCAL WeatherNet, the Capacity Development programs, Green Hydrogen Atlas (H2Atlas), the Joint Communiqué of Intent (JCOI) and Green Hydrogen as well as the WeMAST project.

The show provided an opportunity to interact with various departments, research institutions, students, and general interest groups.

During the exhibition, the Node office engaged stakeholders on three radio sessions with Radio Botswana 1’s “Masaasele” program and Yarona FM radio to create awareness about SASSCAL.
The Botswana node office maintains oversight of the ongoing implementation of the seven SASSCAL 2.0 projects in Botswana. This involves reviewing and providing guidance on financial and technical submissions, ensuring compliance with project requirements, and advising on necessary actions to secure ongoing research funding.

The Node office actively assists researchers by offering support in the preparation of financial and technical reports. Furthermore, thorough reviews of these reports are conducted, and actionable advice is provided to ensure the efficient and effective execution of the projects. This collaborative effort contributes to the successful progress of SASSCAL 2.0 initiatives in Botswana.

In October, the Finance & Administration Officer and the Programme Officer completed the monitoring and evaluation (M&E) and asset verification exercise for the two projects which are being implemented in the Okavango Research Institute Enhanced Livelihoods and Natural Resource Management under Accelerated Climate Change (ELNAC) and the African Antelope abbreviated ANTELOPE a project that assesses the impact of climate change. The exercise revealed the exciting use of cutting-edge technology in both projects, which promises to make significant contributions to the relevant field of knowledge.

In a strategic initiative aligned with SASSCAL’s objectives, the SASSCAL Botswana Node office conducted an enlightening session on the 26th of October 2023 at the Botswana University of Agriculture and Natural Resources in Gaborone. The engagement was aimed to heighten awareness and foster the utilization of SASSCAL’s diverse products and services to students enrolled in various Geospatial courses, spanning from bachelor’s degrees to Master’s and PhD levels.

The products and services session aimed to raise awareness and encourage the use of SASSCAL’s products and services, including its data portal, among undergraduate and postgraduate students, as well as staff.

The session was designed to be interactive, combining theoretical discussions with hands-on demonstrations. This approach provided the attending 42 students with valuable practical experience in effectively accessing and leveraging SASSCAL’s resources, including the WeatherNet, Open Access Data Centre, and WeMAST. These resources were specifically tailored to aid in advancing their ongoing research projects.

The impact of this session was notable, evident in the surge of an estimated 20 new registered users, marking a substantial increase from the solitary users registered in the prior engagements. In addition, the session allowed for the capturing of valuable insights and feedback from participants through questionnaires.

Furthermore, there is a strong anticipation of continued growth in user engagement. The goal is not solely to increase the number of registered users but to instill a culture of continued utilization among students. This proactive approach aimed to empower scholars across
various disciplines and applications, positioning them to leverage SASSCAL’s resources to enrich and elevate their research endeavours.

The overarching objective remains to expand this impactful outreach beyond the confines of this session, reaching a broader audience within the university community. The aspiration is to increase the number of registered users, setting a target to surpass the milestone of 100 engaged individuals. This concerted effort will undoubtedly contribute to the academic enrichment and research enhancement of the university populace.
ASSCAL undertook a Research Methods Training Workshop in Palapye, Botswana from 28 November to 1st December 2023 bringing together a cohort of 45 participants and skilled facilitators.

The attendees comprised of SASSCAL staff, sponsored students under the SASSCAL 2.0 initiative, SASSCAL Alumni from the University of Botswana (UB), Okavango Research Institute affiliates, scholars from the Botswana University of Agriculture and Natural Resources (BUAN), local talents from the Botswana University of Science and Technology (BUIST), as well as promising minds from Namibia University of Science and Technology’s (NUST) School of Graduate Studies Programme, and luminaries from the Department of Meteorological Services (DMS).

The primary goal of this workshop was to elevate the research capabilities of all participants by providing them with hands-on training including various sophisticated research methodologies. The training workshop also covered crucial topics such as meticulous research design, effective data collection methodologies, advanced data analysis techniques, and proficient scientific writing.

What made this workshop particularly impactful was the opportunity it provided for participants to immediately apply their newly acquired skills to their ongoing and forthcoming research endeavours. This application of knowledge is essential as it aims to address pertinent issues related to climate change, not only within Botswana but across the broader in southern Africa regional landscape. The workshop was also set to enhance the quality and depth of research undertaken throughout the region, fostering a collaborative and innovative approach to tackling the challenges posed by climate change.
The first GMES and Africa Continental Forum is a milestone for The Global Monitoring for Environment and Security and Africa programme. As a consortium, SASSCAL has participated in the forum to showcase its products and services and celebrate its achievements for the WeMAST Phase II project. The forum took place from 27 to 30 November 2023 in Sharm el-Sheikh, Egypt under the theme “Earth observation for resilience and innovation in Africa”.

The main objective of the GMES & Africa forum was to:

- Discuss achievements and lessons learnt from the last years of the phase 2 of GMES and Africa, and the way forward to the end of the program in 2025.
- Build on success stories in EO, map out the potential partnerships, and engage stakeholders for assuring sustainable ownership, and linking with existing initiatives.

Organized by the African Union Commission (AUC) with the support of the Egyptian government, the forum brought together more than 200 participants, including 40% women and 30% youth, representing different stakeholder categories such as policymakers, scientists, industry, academia, end users, and the GMES & Africa consortia implementing EO services in the five regions of Africa.

During the official opening of the forum, SASSCAL showcased its WeMAST products and services to participants and demonstrated the achievements WeMAST has made in Phase II as well as challenges faced.
The Executive Director of SASSCAL Dr Jane Olwoch perfectly outlined the biggest accomplishment for Wetlands Monitoring and Assessment Service for Transboundary Basins in Southern Africa to be the operationalization of the Earth Observation platform for a sustainable wetlands management system, the Geoportal and Mobile Application as well as high level partnerships signed with stakeholders with mutual goals in utilizing Earth Observation technologies for the sustainability of wetlands.

SASSCAL’s contributes to Earth observation for resilience and innovation in Africa by collecting a wealth of data for Land Use, Land Cover (LULC), including built-up areas to measure human growth settlements. SASSCAL monitors water resources using EO and in-situ data for interpretation by policy makers. Agricultural production data is also provided. Dr Olwoch in her opening statement emphasized the need to ensure that SASSCAL helps government and institution in wetlands and water resource management make decisions that benefit communities. SASSCAL is responsive and reactive in providing data in a timely manner to deal with challenges in wetlands and the environment at large.

During the forum SASSCAL highlighted some of its achievements for WeMAST Phase II, giving great importance to improving its policy and institutional framework by signing 7 contracts with 6 technical (MSU, UB, UNAM, UNZA, UWC and NSRC) and 1 contract with a private sector company LocateIT. Additionally, SASSCAL also signed a tripartite Memorandum of Understanding (MoU) with CSE and RMCRD in February 2023 for the purpose of building synergies and an MoU with WaterNet in June 2023.

Through its output for Earth Observation and In-Situ Data Access, SASSCAL outlined activities such as field data collection, the development of EO-based products and services, held fruitful collaborations and knowledge sharing amongst consortium and explored student exchange and stakeholder engagements.

It is important to note that with the partnership with LocateIT, has improved and developed new EO based products and services in phase II of the WeMAST project that involves mapping products, statistical analysis, temporal series, Mapographics as well as a mobile application.
Furthermore, in prioritizing capacity building, SASSCAL conducted 2 EO training a face-to-face training in Bulawayo attended by 32 participants and an online training in November 2023 which had 53 participants from across Africa. SASSCAL with its technical partners MSU carried out field data collection, as well as collaborating on student exchange programs, were MSU and UWC co-supervised 1 MSC and 2 PhD students in wetland-catchment soil moisture dynamic amongst other capacity building activities.

Moreover, for the output of knowledge management and cross-fertilization, SASSCAL participated in several stakeholders’ engagements and workshops such as the EO land degradation monitoring in Africa workshop in Rabbat, Morrocco in March 2023, the GMES & Africa workshop on EO wetlands and flooding monitoring in March 2023 in Nairobi, Kenya, and co-hosted the GMES & Africa workshop in Angola in June 2023.

Importantly, through the engagement of workshops, training, stakeholder engagements, SASSCAL gained more insight and feedback on the needs to continuously improve on the expectations of the WeMAST products and services. SASSCAL held 2 WeMAST Phase II stakeholders’ engagement for the Okacango river basin in Maun Botswana and for the Cuvelai river basin in Ongwediva, Namibia in May 2023.

Most signified, SASSCAL, CSIR with GMES & Africa leadership visited the Vice-President of Angola, Her Excellency Esperança Maria Eduardo Francisco da Costa to discuss research and human capital as well as to exchange ideas on the importance of bridging the gap between science and policy makers in utilizing EO technologies towards mitigating the effects of climate change. This was an invaluable opportunity to build strong relationships and foster collaborations that contribute to the sustainable development of Southern Africa and Africa at large.

The achievements of SASSCAL during the WeMAST Phase II underscored the vital role of collaborative partnerships in advancing scientific research and sustainable development across Southern Africa.

To conclude the forum, the European Commission and African Union Commission stressed the need for additional efforts to ensure a more tangible impact of services on the daily activities of end-users. They also underlined the importance of increased collaboration between stakeholders, using mechanisms such as communities of practice and cross-fertilization.

**SASSCAL CEMENTS ITS SUPPORT FOR CLIMATE CHANGE SOLUTIONS AT THE AFRICA CLIMATE SUMMIT IN KENYA**

The Southern African Science Service Centre for Climate Change and Adaptive Land Management (SASSCAL) participated in the Africa Climate Summit in Nairobi, Kenya from the 4th to the 6th of September 2023.

The summit which was organized by Accelerating Impacts of CGIAR Climate Research for Africa (AICCRA) and hosted by Kenya aspired to chart a new growth agenda that will deliver shared prosperity and
sustainable development in Africa. Climate change poses unpredictable challenges to the survival of humans, animals, plants, and ecosystems while putting development gains at risk.

His Excellency the President of the Republic of Kenya, Dr. William Samoei Ruto, invited all member states of Africa and organizations to the summit amidst the climate change crisis that is a shared threat to Africa and as an opportunity to develop and implement common continental and global solutions.

Dr. Jane Olwoch, the Executive Director of SASSCAL, participated in a captivating debate at the Africa Climate Summit on the importance of investing in and collaborating with Africa's regional organizations to realize the ambitions of the African Union Climate Change and Resilient Development Strategy and Action Plan for 2022-2032. More Information on the Strategy, Link

The African Union Climate Change and Resilient Development Strategy and Action Plan (2022-2032) which was adopted in February 2022 by the African Union heads of state and government aims for a sustainable, prosperous equitable, and climate-resilient Africa with an overall objective of building the resilience of African Community, ecosystems and economies and supporting regional adaptation.

The strategic and action plan provides a common framework that Africa can pursue with a collective climate change resilient development agenda, develop partnerships, and rally support for its implementation with four strategic intervention axes namely:

**Axis 1: Governance and Policy:** By conducting scientific research and providing relevant data-driven products and services, SASSCAL contributes valuable insight that informs evidence-based policymaking and decision-making. SASSCAL can do this through collaborations with the government in the five member states through signed treaties, as well as signed partnerships with various research and environmental organizations of mutual interest as well as through the support of its main sponsors the Federal Ministry of Education and Research (BMBF) as well as the European and African Union.

**Axis 2: Adopting pathways towards transformative climate-resilient development:** SASSCAL supports and engages in cutting-edge scientific research for understanding climate change challenges in Southern Africa. Additionally, SASSCAL actively promotes collaboration and knowledge sharing as well as capacity building programmes with regional and international stakeholders fostering a collective approach to climate change.

**Axis 3: Enhancing means of implementation towards climate resilient, low emission development, through climate change finance:** SASSCAL’s vision is to be the leading regional centre in integrated climate change and adaptive land management science services, and it does so by strengthening the regional capacity knowledge products and services on climate change and land adaptive management. Through its diverse projects, capacity building, strategic partnerships, and policy advocacy, SASSCAL enhances the means of implementation towards a climate resilient Southern Africa.

**Axis 4: Leveraging regional flagship initiatives:** Through collaboration and partnerships with regional organizations through regional initiatives, workshops, knowledge exchange within its five member states as well as within Africa, SASSCAL maximizes the impact of its efforts in Southern Africa and Africa at large.

Overall the strategy plan supports and is aligned to the commitment made by African countries under the 2015 United Nations Framework Convention on Climate Change (UNFCCC) Paris Agreement, the United Nations Agenda 2030 for Sustainable Development Goals, the African Union’s Agenda 2063 amongst other continental strategy frameworks and agendas aimed at enhancing inclusion, alignment, cooperation and ownership cross Africa to support the communities impacted by challenges in response to climate change.

For more information on SASSCAL’s initiatives and impact visit our official website: [https://sasscal.org/](https://sasscal.org/)
NAMIBIA GREEN HYDROGEN PILOT PROJECTS

At present, SASSCAL is supporting the Federal Ministry of Education and Research (BMBF) in coordinating and overseeing the green hydrogen and renewable energy initiatives in Southern Africa and the greater SADC region, including Namibia. Under the Green Hydrogen Initiative, SASSCAL is involved in several pilot projects which include the Daures Green Hydrogen Village, the Cleanergy Refuelling Station, HyRail Namibia Green Hydrogen Dual Fuel Locomotive Project.

The Daures Green Hydrogen Village

The village’s primary objectives of sustainable green hydrogen and ammonia production, fostering local employment and partnerships, demonstrating green hydrogen applications, and enabling a green hydrogen economy will serve as a model for future developments across the region.

The Daures Green Hydrogen Village cumulative project implementation percentage of activities achieved is 66% as at November 2023. SASSCAL conducted a site visit in early November 2023. The project implementation has so far impacted about 160 plus jobs created on site and 20 plus partner researchers engaged. The Daures Green Hydrogen Village is set to become Africa’s first green hydrogen community.
**Cleanergy Green Hydrogen Refuelling Station**

SASSCAL and Cleanergy Solutions (Namibia) signed a Project Funding and Cooperation Agreement on 31 December 2023. With project objectives to test and develop a green Hydrogen production refuelling plant and demonstrate how to integrate the hydrogen production and technologies into the Namibian green economy.

**HyRail Namibia Green Hydrogen Dual Fuel Locomotive**

HyRail Namibia Green Hydrogen Dual Fuel Locomotive is in the contracting stage of due diligence. The main objective of this project is to convert two locomotives to operate with green hydrogen fuel in dual fuel mode, including design, build, test, commissioning, and operation of the locomotives.
EMPOWERING NAMIBIAN YOUTH FOR A SUSTAINABLE FUTURE: YOUTH FOR GREEN HYDROGEN PROGRAMME AWARDS 90 STUDENTS.

Following an extensive nation-wide outreach workshop in collaboration with the regional Governors and the Namibian Government that attracted about 2,177 participants, SASSCAL has awarded 90 youth students with the Green Hydrogen scholarship.

“This workshop has uncovered a great opportunity. We are ready to submit our applications for the Green Hydrogen Youth Scholarships and actively contribute to this transformative initiative in Namibia. With the scholarships’ support and our government’s endorsement, there are no limits to what we can achieve.” - Youth member.
The Second Call for Youth for Green Hydrogen (Y4H2) Scholarship Programme that is set to facilitate capacity building for the emerging Green Hydrogen industry attracted 4,363 applications of which 30 students were awarded for master’s degree and 60 for TVET programmes. The first call for applications has funded 73 students who are studying for Renewable Energy and Green Hydrogen qualifications.

The scholarship awarded will provide up to €25,000.00 for Masters’ degree and up to €10,000.001 for a TVET Diploma/Certificate for the full duration of the study. The scholarship will cover amongst others the following:

- A monthly stipend
- Registration and Tuition fees
- Laptop
- Personal Protective Equipment and Toolbox for TVET trainees
- Travel and visa expenses for a Research Stay/
  Exchange Visit in a German Institution, or University, for a period of up to 6 months.

The nationwide outreach served as a platform to raise awareness about the potential of green hydrogen as well as the scholarship opportunity second call for applications. The Scholarship opportunity is for 2024 - 2025.

The establishment of a Y4H2 Scholarship Programme is a result of a joint communique of intent between the Namibian and German government, an intent that was signed on the 25th of August 2021 in Berlin is fully funded by the German Ministry of Education and Research (BMBF) at a tune £5 million was allocated for capacity building amongst the Namibian youth.

As the youth embarks on their academic journey, they carry the responsibility to drive innovation, inspire positive change in the energy sector and beyond.
SASSCAL STRATEGIC EMBRACE FOR INTENSIVE EARTH OBSERVATION CAPACITY BUILDING FOR WEMAST PROJECT A SUCCESS.

Following the African Union Commission’s (AUC) monitoring visit to SASSCAL Secretariat Office from the 23rd to the 24 October 2023 to assess and validate the progress of the WeMAST project, SASSCAL has prioritized capacity building and is set to outline several trainings on the importance of Earth Observation and wetlands.

The mid-year (January to June 2023) progress report and feedback activity, allowed for:

- Analyse and validate results, products, and services delivered.
- Provide necessary support, including management, finance, procurement, technical assistance, and advice to ensure the attainment of intended results and project success.
- Document key lessons learned and chart a way forward.

The Wetlands Monitoring and Assessment Service for Transboundary Basins (WeMAST) project under SASSCAL has developed an Earth Observation based platform to be utilized as a sustainable wetlands management system. For valued addition to the WeMAST products and services, SASSCAL has prioritized capacity building as a key strategy to ensure uptake of the WeMAST products and services as well as the effective monitoring and assessment of its wetlands using Earth Observation technologies.

With the support of the Global Monitoring for Environmental and Security and Africa (GMES and Africa) Programme SASSCAL has taken a significant step towards the advancement of capacity building in Earth Observation as a pivotal role of addressing complex wetlands challenges and ensure the success of the WeMAST initiative.

The last training for the year was an online training in Google Earth Engine, Cloud-computing and Earth Observation that took place on the 15th and 16th of November 2023. The training accommodated close to 60 participants from diverse fields of river basin organizations, national water/ environmental authorities, academic and research institutions, private sector, local communities’ representatives, non-governmental organizations, women in natural and water resources management across 30 Africa countries.
The training focused on leveraging the potential of Google Earth Engine (GEE), Cloud Computing and Earth Observation (EO) application in the intricate domain of wetlands monitoring and assessment.

SASSCAL’s decision to prioritize capacity building under the WeMAST project underscores the organization’s forward-thinking approach. Investing in capacity building creates a sustainable framework for utilizing EO data effectively and ensures regional experts and decision-makers are equipped with the skills to interpret and apply EO data.

In prioritizing EO capacity building, SASSCAL positions itself as a leader in addressing regional wetlands and climate change challenges through innovation and the success of the WeMAST project.

SASSCAL’s WeMAST project under GMES & Africa is jointly funded by the African Union Commission through a partnership with the European Union. For the year 2022, an amount of € 300 000 Euros, which is equivalent to N$ 4.8 million in Namibian dollars, was utilized to launch WeMAST Phase II and on products and services linked to capacity building on Earth Observation Applications in monitoring and assessment of wetlands.
The below data is extracted from SASSCAL’s Open Access Data Center (OADC) established as a core facility for the delivery of user-demanded services and products.

**A new hydrological year has started.**

The 27th Annual Southern Africa Regional Climate Outlook Forum (SARCOF-27) Seasonal Rainfall Outlook Statement was published at the end of September 2023 and presents a consensus outlook from climate experts from the SADC National Meteorological, Hydrological and Climate Services. Inputs from various regional and international sources were considered. The Seasonal Outlook covers the period from October 2023, which coincides with the start of the 2023/24 rainfall season, until February 2024.

For the period from October to December 2023, the outlook has predicted a high probability of rainfall that is normal to below-normal for the central area, eastern, south-eastern, and southern part of southern Africa, with normal to above-normal rainfall for the south-western, western, north-western, northern and east-northern part of southern Africa, with the northern and north-eastern part of Tanzania predicted to experience above-normal rainfall.

Map showing the SARCOF-27 seasonal rainfall outlook for SADC for October 2023 to December 2023 (Source SARCOF-27 Seasonal Rainfall Outlook Statement)
The rainfall index percentage of average rainfall for the first quarter of the rainfall or hydrological year from October to December 2023 indicates that large parts of southern Africa had below average rainfall, while the north and west of Angola, larger parts of Botswana and Namibia, the east, and parts of the north and central of South Africa, the north and central of Zambia and the central and south of Zimbabwe had above average rainfall.

According to the WMO (World Meteorological Organization) advised rainfall indicator, the Standardized Precipitation Index (SPI), the SPI for October to December 2023 suggests that most of southern Africa had near normal rainfall in the first quarter of the rainfall season. Scattered areas in western and northern Angola, eastern South Africa, northern Zambia, and northern and south-eastern Zimbabwe had moderately to extremely wet conditions, while scattered areas in south-eastern Angola, northern and south-eastern Botswana, eastern and southern Namibia, north-eastern South Africa, western Zambia, and Zimbabwe had moderately to severely dry conditions.
The rainfall season outlook, according to the SARCOF-27 statement, for the period from December 2023 to February 2024 is normal to above normal for most of the southern African region, with only the south-western, central, and south-eastern part receiving normal to below-normal rainfall.
SASSCAL recently held its team-building exercise amidst calls to celebrate its achievements and reinforce the commitment to working together towards organizational goal.

The regional organisation boasts several achievements since it was established including funding the first and only Green Hydrogen Village in Africa, publishing the Atlas of Green Hydrogen Generation potential in 12 SADC countries, crafting the Namibia Green Hydrogen Strategy, and establishing the Youth for Green Hydrogen Scholarship programme.

Additionally, SASSCAL 2.0 was successfully launched this year after which, 54 contracts from all 13 projects within the SASSCAL member states have been signed. SASSCAL is implementing the SASSCAL Graduate Studies Programme in Integrated Water Resource Management (SGPS-IWRM) Specialised Centre of Excellence aimed at producing PhD graduates with specialised skills to help manage the region’s water resources. The study programme is hosted by the Namibia University of Science and Technology (NUST), which currently has 13 PhD students enrolled in the SGPS-IWRM Programme.

Furthermore, with the blessing of the African Union Commission, SASSCAL forms part of the GMES Phase 1 and Phase 2 which has developed a WeMAST Geoportal for wetlands. Importantly, SASSCAL announced the second call for applications of the Youth for Green Hydrogen Scholarships of which the first call funded 73 students studying towards Renewable Energy and Green Hydrogen qualifications.

Moreover, SASSCALS’s WeatherNet remains one of the most reliable sources of daily weather and climate data. The number of products, the quality and its users increase every year.
SASSCAL Executive Director, Dr Jane Olwoch urged the staff to celebrate these achievements noting that the organisation has made its mark in the science and research sectors. “We neither appreciate nor celebrate our achievements enough. Today, I am celebrating, SASSCAL is making its mark,” she said in a speech during the team building exercise.

The colourful event, which brought together SASSCAL employees from the Regional Secretariat in Windhoek and the National Nodes of Angola, Botswana, Namibia, and Zambia, took place in Swakopmund from 6 – 10 November 2023.
The team-building exercise took the form of numerous activities such as an internal organisational strategy session, indoor and outdoor team-building activities, as well as a visit by some staff and management to the famed Daures Green Hydrogen village. The project, based in Erongo region, is one of the Green Hydrogen pilot projects being implemented between the Namibian and German Governments and coordinated by SASSCAL under the Joint Communique of Intent (JCOI) agreement signed between the two countries in 2021.
At the end of the event, SASSCAL awarded 16 employees who served the organisation for 5 years or longer with Long Service certificates, during which Dr Olwoch reminded the employees about the many achievements SASSCAL has made. “Why are we not celebrating the extra nights, weekends and dedication we put in for this to happen and it is happening again this year, for next year,” she said.

The achievements do not just cover the programmes and projects but also the way the staff are dedicated to conducting affairs of the institution. The Council of Ministers has time and again commended the institution for the quality of its work and has pledged their continued support.

Dr Olwoch also appreciated the staff from the different departments for the hours of work they invest in the organisation. She mentioned the finance and administration staff in all countries who work tirelessly to support all technical units, the IT, Human Resource and Administration for their dedication to SASSCAL. SASSCAL’s website beams with news, and the institution’s social media pages are alive with current and thought-out topics, thanks to the communications team, she mentioned. “This success belongs to you, to us,” she added.

The Executive Director reminded the staff that SASSCAL was able to achieve such because of the support from the German Federal Ministry of Education and Research (BMBF), which funds the Climate Research Programme, the Green Hydrogen and SGSP-IWRM, the African Union Commission for their financial contribution towards the WEMAST Programme under GMES and Africa and the financial support and political will from the member states.

Finally, Dr Olwoch stated, “All we have to do today and from now on is talk to ourselves about our own successes; be sure you are recognizing your own accomplishments, no matter how small they may be.”
Dr. Musonda Ng’onga recently joined SASSCAL as a Senior Scientist, commencing on 1st June 2023. With a PhD in Natural Resources Management - specialising in Climate Change Adaptation, he boasts 15 years of extensive experience in various research areas, including biophysical, socio-economic research, project evaluations, and vulnerability assessments. Dr. Ng’onga has focused on Climate Change Adaptation in natural resource-based livelihoods over the past decade. His academic background includes a Doctor of Philosophy (PhD) from Copperbelt University, a Master’s in Tropical Ecology and Biodiversity from the University of Zambia, and a Bachelor’s in Aquaculture and Fisheries Sciences from the University of Malawi.

Prior to joining SASSCAL, Dr. Ng’onga held significant roles such as Project Manager and Climate Adaptation Expert/M&E expert supported by organizations like African Development Bank (AfDB), United Nations Development Programme (UNDP), and the Ministry of Agriculture in the Government Republic of Zambia. He brings extensive experience from various donor-funded projects, including those by FAO, Finland, WWF, World Bank, UNDP, and SNV. His arrival at SASSCAL is exciting, and there is anticipation for his substantial contributions to the team.

SASSCAL WELCOMES MS. HELVI MUFETI AS PROJECT ASSISTANT FOR THE GREEN HYDROGEN PROJECT

Dr. Botlhe Matlhodi, appointed as the Programme Coordinator for SASSCAL Botswana Node since 1 June 2023. With over 12 years of diverse experience in research, lecturing, consulting, and the public sector, she has established herself as a proficient professional in various environmental fields. Dr. Matlhodi holds a Bachelor of Science (BSc) in Environmental Science, a Master’s in Integrated Water Resources Management (IWRM), and a PhD in Environmental Science with a specialization in hydrology and water resources. She excels in Integrated Water Resources Management (IWRM), leveraging her expertise in changing environments, climate resilience, adaptation, and mitigation strategies. She also possesses advanced skills in remote sensing, GIS applications for land use analysis, and catchment modeling, contributing significantly to environmental monitoring and land management. Additionally, Dr Matlhodi is a published author in indexed journals, further highlighting her contributions and expertise in the field. SASSCAL welcomes her aboard!
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