



# 11<sup>th</sup> Southern African Fire Network (SAFNet) Meeting, 2021

## Zoom Online Meeting, 28-29 July 2021

*“Re-igniting SAFNet: Current status of regional activities, future developments and collaborations.”*

### Background GOFC-GOLD Fire

Global Observations of Forest Cover and Land-use Dynamics (GOFC–GOLD) is a coordinated international program working to provide ongoing space-based and in situ observations of the land surface to support sustainable management of terrestrial resources at different scales. The GOFC–GOLD program acts as an international forum to exchange information, coordinate satellite observations, and provide a framework for and advocacy to establish long-term monitoring systems. It was established as a part of a Committee on Earth Observation Satellites (CEOS) pilot project in 1997, with a focus on global observations of forest cover. Since then, the program has expanded to include two Implementation Teams: Land Cover Characteristics and Change, and Fire Mapping and Monitoring. In addition, two working groups—Reducing Emissions from Deforestation and Forest Degradation (REDD), and Biomass Monitoring—were also formed. GOFC–GOLD activities are guided by an executive committee, primarily with support from NASA and the European Space Agency (ESA). In 2017, the GOFC–GOLD program celebrated its twentieth anniversary by convening a Regional Networks Summit in Tbilisi, the capital of the country Georgia.

The GOFC/GOLD-Fire Mapping and Monitoring Theme is aimed at refining and articulating the international observation requirements and making the best possible use of fire products from the existing and future satellite observing systems, for fire management, policy decision-making and global change research. The main objectives of Fire Implementation Team (Fire-IT) include:

- to increase user awareness by providing an improved understanding of the utility of satellite fire products for resource management and policy within the United Nations and at regional national and local levels.
- to encourage the development and testing of standard methods for fire danger rating suited to different ecosystems and to enhance current fire early warning systems.
- to establish an operational network of fire validation sites and protocols, providing accuracy assessment for operational products and a testbed for new or enhanced products, leading to standard products of known accuracy.
- to enhance fire product use and access by developing operational multi-source fire and GIS data and making these available over the Internet.
- to develop an operational global geostationary fire network providing observations of active fires in near-realtime.

- to establish operational polar orbiters with fire monitoring capability by providing i) operational moderate resolution long-term global fire products to meet user requirements and distributed ground stations providing enhanced regional products; ii) operational high resolution data acquisition allowing fire monitoring and post-fire assessments.
- to create emissions product suites, developed and implemented providing annual and near real-time emissions estimates with available input data.

## **GOFC Regional Networks – Fostering better collaboration and partnership between SAFNET and Miombo Networks**

The Southern Africa fire network (SAFNet), alongside the Miombo Network (MN), is a GOFC-GOLD regional network which gather scientists, fire practitioners and policy makers from the region and beyond. Both have functioned as platforms for information sharing and dissemination as well as a meaningful resource access. Each network has its own niche in terms of focus and activities. The MN focus is on the Miombo woodlands of southern Africa while SAFNet has targeted its activities on fire, fire management and the use of remotely-sensed fire products across the region. However, since the networks overlap in aspects of fire ecology (Miombo woodlands are a fire-driven ecosystem), and to reduce meeting organization and financing costs, we propose better collaboration and partnership between the two Networks. Collaboration will allow members (the two networks share common members) to be exposed to both the drivers (FIRE) and ecology (MIOMBO) in the region. We also hope to share learning around how to maintain and grow networks in southern Africa and influence policy. This idea is supported by the GOFC-GOLD and other subsidiary institutions such as GWIS and START.

Key activities of GOFC-GOLD regional networks are to gather members in scientific meetings aiming to share information, experiences, products, discuss science and collaborative research projects and decide about network governance. Both networks have similar challenges in terms of maintaining an active community of participants across the region, and both have been invigorated by activities associated with shared funding - for example, the MN worked with the World Bank in 2018 to improve its institutions and gain better access to policy makers, and SAFNet has been involved in various regional projects to make real-time active fire detection and reporting easier in the countries in the southern African region.

To date, SAFNet and the MN have followed quite different organizational approaches and the steering committees believe that it would be advantageous to engage and discuss the strengths and weaknesses of the two networks together and learn from each other's experiences. This concept was discussed and endorsed at the GOFC-GOLD Regional Networks Summit, Tbilisi, Georgia, 13-16th September 2017.

Importantly, there is a new cohort of researchers emerging from some of the less well represented countries (including Angola and Madagascar) and some of the previously active participants have moved on. This is an appropriate time to reinvigorate the networks with new younger scientists.

## Objectives of the 11<sup>th</sup> SAFNet meeting

The main objectives of meeting are:

1. **Discuss progress of network activities in the region since SAFNet 2018 in Kruger National Park.**
2. **Highlight fire science and network activities that are in progress in the region and international opportunities**
3. **Share global experience, technologies and expertise on fire and fire management science and practices.**
4. **Develop strategies and projects to strengthen the network, engage new scientists and network members.**
5. **Building synergies and collaboration with the Miombo network**

## Draft Programme

The programme will be managed flexibly and adaptively to accommodate the interests of the group and to make maximum use of the time and energy of the participants. In case there are other priority areas coming up during the workshop, changes will be taken into consideration.

## Day 1: Wednesday 28<sup>th</sup> July 2021

### Opening Session: 11th SAFNet Meeting

<p>10:00 - 11:00 SAST (Local Time RSA)</p>	<ul style="list-style-type: none"> <li>• A word of thanks from SAFNET <b>Wisdom Dlamini - Eswatini</b></li> <li>• Overview and latest News on GOFC-GOLD Fire <b>David Roy, Martin Wooster, Jesus San-Miguel</b></li> <li>• SAFNET report back from 10<sup>th</sup> SAFNet meeting in Kruger National Park 2018 <b>Chenay Simms – RSA, SANParks</b></li> <li>• Report back from Miombo meeting (3-4 June 2021) <b>Natasha Ribeiro, Sally Archibald</b></li> </ul>	<p><i>Session Facilitator:</i></p> <p>Wisdom Dlamini</p>
<p>11:00 – 11:30</p>	<p><b>Virtual coffee/tea break with breakout rooms for meet, greet &amp; network</b></p>	
<h3>Session 1: Fire Research and Projects in the SAFNET Region – Recent Updates</h3>		
<p>11:30 -13:00</p>	<ul style="list-style-type: none"> <li>• Burning Plots in Kruger National Park <b>Tercia Strydom – RSA, SANParks</b></li> <li>• Current status of AFIS and new developments <b>Riaan van der Dool – RSA, CSIR</b></li> <li>• Community-based Fire Management and REDD+. Where to from here? <b>Val Charlton – RSA</b></li> <li>• Mapping paleofire studies from southern Africa's grassy ecosystems: implications for management <b>Abraham Dabengwa – RSA, Wits University</b></li> <li>• Friend or Foe? The potential role of media framing social perspectives on fire <b>Izak Smit – RSA, SANParks</b></li> <li>• Could CO<sub>2</sub>-induced changes to C<sub>4</sub> grass flammability aggravate savanna woody encroachment? <b>Sarah Raubenheimer – RSA, Rhodes University</b></li> </ul>	<p><i>Session Facilitator:</i></p> <p>Karen Steenkamp</p>
<p>13:00 – 13:45</p>	<p><b>Virtual lunch break with breakout rooms for meet, greet &amp; network</b></p>	
<h3>Session 2: Re-igniting the Southern African Fire Network</h3>		
<p>13:45 – 15:30</p>	<ul style="list-style-type: none"> <li>• Miombo steering committee presentations</li> <li>• Reflections on Fire Management Networks – Enduring and Not so - <b>Peter Moore – Italy, FAO</b></li> <li>• Facilitated breakaway groups – Ideas, measures, and action items for re-igniting SAFNET</li> </ul>	<p><i>Session Facilitator:</i></p> <p>Navashni Govender</p>

	<ul style="list-style-type: none"> <li>Feedback from breakaway group</li> </ul>	
15:30 – 15:45	<b>Virtual coffee/tea break with breakout rooms for meet, greet &amp; network</b>	
<b>Session 3: Fire Research and Projects in the SAFNET Region – Recent Updates</b>		
15:30 – 17:30	<ul style="list-style-type: none"> <li>Update on savanna burning emissions abatement research in Botswana and Zambia <b>Jeremy -Russell Smith – Australia</b></li> <li>The role of humans, climate, and vegetation in the complex fire regimes of north-east Namibia <b>Glynis Humphrey – RSA, University of Cape Town</b></li> <li>Variability in savanna fire emission factors <b>Roland Vernooij – Netherland, Vrije University</b></li> <li>Africa burned area product generation and validation with Landsat-8, Sentinel-2 and commercial Planetscope imagery <b>David Roy – USA, Michigan State University</b></li> <li>National and sub-national burned area assessment information for fire activity reporting and carbon inventories from the internet based Global Wildfire Information System (GWIS) <b>Luigi Boschetti – USA, University of Idaho</b></li> </ul>	<p><i>Session Facilitator:</i></p> <p>Ntando Nondo</p>

## Day 2: Thursday 29<sup>th</sup> July 2021

### Opening Session: 11th SAFNet Meeting

10:00 – 10:15 SAST (Local Time RSA)	<ul style="list-style-type: none"> <li>Welcome 2<sup>nd</sup> day of the SAFNET meeting.</li> <li>Re-cap of outcomes from breakaway groups on Day 1</li> </ul>	<p><i>Session Facilitator:</i></p> <p>Navashni Govender</p>
<b>Session 4: International Fire Research and Projects</b>		
10:15 – 11:45	<ul style="list-style-type: none"> <li>Recent developments in the Global Wildfire Information System (GWIS) <b>Jesus San-Miguel – Italy, Joint Research Centre</b></li> <li>CEOS Wildfire Pilot – Why and What for Whom? <b>Peter Moore – Italy, FAO</b></li> <li>FREM Geostationary Fire Emissions product <b>Martin Wooster – UK, Kings College</b></li> <li>Developing a strategic approach to fire information management in a large national park in West Africa <b>Gernot Rucker– Germany, Zebris</b></li> </ul>	<p><i>Session Facilitator:</i></p> <p>Tercia Strydom</p>

	<ul style="list-style-type: none"> <li>Global prescribed burn records to help understand the future pressures of climate change on management opportunities <b>Matthew Jones – UK, University of East Anglia</b></li> </ul>	
11:45 – 12:00	<b>Virtual coffee/tea break with breakout rooms for meet, greet &amp; network</b>	
<b>Session 5: SAFNet’s future</b>		
12:00 – 13:15	Discussion on collaborative opportunities and projects based on outputs from Day 1 break away session	<i>Session Facilitator:</i> Sally Archibald
13:15 – 14:00	<b>Virtual lunch break with breakout rooms for meet, greet &amp; network</b>	
<b>Session 6: SAFNet administration and governance structures</b>		
14:00 – 15:45	<ul style="list-style-type: none"> <li>Election of SAFNet steering committee members</li> <li>Website – <b>Chenay Simms, RSA, SANParks</b></li> <li>SAFNet Administration</li> </ul>	<i>Session Facilitator:</i> Chenay Simms
15:45	<ul style="list-style-type: none"> <li>Closing of meeting - <b>Wisdom Dlamini, Swaziland</b></li> </ul>	

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