

## 6<sup>th</sup> International Wildland Fire Conference

### Statement of the Southern African Fire Network (SAFNet) – An Input Paper to the Conference Statement

13 October 2015

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#### **Introduction**

The Southern African Fire Network (SAFNet) is a regional network of GOF-C-GOLD's Landcover and Fire program that fosters collaborative efforts in fire monitoring and management in southern Africa. The network has no secure funding, no salaries and its members and governance structures are voluntary. However, regular financial support is obtained from START to host a regional meeting every two years.

The Goal of SAFNet is: To achieve more effective fire management policies and practices in southern Africa through the use of remote sensing and other geospatial technology, with a purpose of enhancing the use of information from field observations and remote sensing of fires for natural resource management in southern Africa.

The objectives of SAFNet within the region are:

- To enhance the use of validated remote sensing products for operational fire management and fire science;
- To promote a forum for informed communication of recent fire science and satellite based fire products issues;
- To communicate national and regional fire management and research needs at the international level;
- To collate and disseminate regional fire information, data and best practices for field observations; and
- To develop and maintain links to existing fire and other natural resource and land-use management networks.

The key focus areas for the network in the region are:

- Provision of satellite based fire products;
- National to Regional scale systematic fire monitoring in support of fire management;
- Remote sensing based capacity building and training;
- Validation of new satellite fire products; and
- Support national and regional fire policy development.

The network was initiated using small seed funding grants from NASA, USAID and START. The network attempts to hold a meeting, funded predominantly by START, every 2 years. To date, the following meetings have been held:

- 1<sup>st</sup> Meeting IGBP/START/LCLUC Miombo Network Workshop on Ecology and Management of Fire in Miombo, Matopo, Zimbabwe (19–23 April 1999)
- 2<sup>nd</sup> – Zimbabwe-Zambia Meeting (11–19 July 2000)
- 3<sup>rd</sup> – University of Botswana, Gaborone, Botswana (29 July – 01 August 2002)
- 4<sup>th</sup> – Kruger National Park, South Africa (17–23 August 2003)
- 5<sup>th</sup> – Mangochi, Malawi (9–13 August 2004)
- 6<sup>th</sup> – Maputo, Mozambique (5–6<sup>th</sup> October 2006)
- 7<sup>th</sup> – Katima Mulilo, Namibia, 22–26 September 2008)
- 8<sup>th</sup> – Golden Gate National Park, South Africa (6–8 May 2011)
- 9<sup>th</sup> – Morogoro, Tanzania (4–8 February 2013)

## General Fire Assessment

Main advances achieved since the last International Wildland Fire Conference (reference to the recommendations of the 5<sup>th</sup> IWFC and the results of activities between the 5<sup>th</sup> and the 6<sup>th</sup> IWFCs (i.e., between 2011 and 2015):

1. Development of a SADC Integrated Fire Management Curriculum – Teaching the concept of Integrated Fire Management (IFM) as a holistic framework for managing fires in the various ecosystem types while providing associated co-benefits for local communities and sustained ecosystem services.
2. Fire instructor training (practical, technical and academic) of 12 fire managers from conservation agencies in the region in collaboration with the SADC regional Fire Management program.
3. The GIZ and SADC collaboration, implemented 9 pilot projects in 8 TFCAs in the SADC region. Three of these focus on income generation, four on transboundary fire management and two on climate change adaptation. The four fire projects were as follows:

No	Countries involved	Title	Status
1	Angola (ACADIR) and Namibia (IRDNC)	Community-Based Fire Management: An Integrated Transfrontier Fire Management Strategy for Luiana Partial Reserve in Angola and Bwabwata National Park in Namibia	Strategy was developed, project is finalized, fire strategy shall be taken up as good practice in Namibia's MET fire strategy for Zambezi region
2	Malawi (DNWP) and Zambia (ZAWA)	Development of a Community Based Fire Management Plan for Munyanjala-Kambombo Community Area.	Project established situational analysis and trained communities in fire management aspects
3	South Africa and Swaziland	Development of Standard Operating Procedures for cross-border community-based fire management in Songimvelo – Malolotja TFCA	Final report due at the end of 2015
4	South Africa (KNP) and Mozambique (LNP)	Comparing two fire management strategies in the GLTP: creating the foundations for a fire management system in the LNP	Report has been submitted, the fire management plan for LNP has been developed, fire and vegetation monitoring equipment handed over to LNP and finally the collaboration between KNP and LNP has been further strengthened.

4. The remote sensing field validation campaign held in the Kruger National Park, South Africa that was funded by START.

## Gaps / shortcomings in wildland fire science, management and policies

1. Correct interpretation and use of the GIS and remote sensing information to support fire management planning and decisions
2. Preparing and implementation of Fire Management Plans for conservation agencies and other fire prone areas
3. Planning and implementation of early/ prescribed burning techniques in order to reduce wildfire hazard in the late dry season at the landscape level in conservation areas
4. Insufficient practices of Community-Based Fire Management approaches
5. Emission calculations from late season fires versus early season fires
6. Addressing fire emissions and management in the REDD+ planning and implementation

### ***Proposals for solutions / action to be taken***

1. Implementation of Integrated Fire Management addressing the various aspects entailed
2. Fire danger rating training for the region
3. Planning and execution of remote sensing field validation campaign
4. AFIS and MESA training and monitoring
5. SAFNet meetings to continue with the Network
6. Two new regional fire projects:
  - Prototyping a Landsat-8 Sentinel-2 Global Burned Area Product – South Dakota State University
  - Harmonization, characterization and field validation of satellite fire products by international science groups and institutions from the USA, Germany and UK.

### ***Conclusions***

- Over the last 15 years, SAFNet has successfully supported the exchange of knowledge and information of fire science and management and is recognized as the platform for fire networking in the region.
- In an attempt to reach as many people within fire science, remote sensing and policy environments, and always trying to link these three institutions in order to improve fire management in the region, we are continuously trying to increase our network members.
- However, lack of continuous funding makes it difficult to maintain a high level quality of service and function that a network should deliver (e.g. maintaining the website with up-to date information) due to the volunteer basis that the network is run on.

### ***Recommendations***

- Seek regional political recognition and support for the network in order to be more sustainable in the future
- Work more closely and develop collaborative projects with other networks in the regions