

# FIRING UP FOR CLIMATE CHANGE

International Savanna Fire Management Initiative Botswanan Pilot Project



Hosted by:



ISFMI project  
delivery partners:



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## Firing up for Climate Change

Climate change presents the single biggest threat to sustainable development and urgent action is critical to implementation of the Sustainable Development Goals. The Paris Agreement provides a global framework for reducing GHG emissions with over 100 Parties referring, in their Intended Nationally Determined Contributions (INDCs), to actions in the land and agricultural sector.

Every year wildfires make news headlines across the world. They are a major threat to human lives, biodiversity, property and economies. Due to colonisation, traditional ways of fire management have been suppressed across landscapes and as a result vast areas of country are poorly managed and degraded. Conventional methods of firefighting have largely failed. Climate change will make the situation worse.

Indigenous people in Australia have developed a solution to this threat and Indigenous people across northern Australia have been leading the way. Combining their traditional knowledge with modern science and technology, they burn early, keep fuel loads down and reduce destructive wildfires. This leads to a decrease in greenhouse gas emissions, which in turn provides carbon market opportunities.

Today, traditional fire management is practised across northern Australia on range of tenures including Indigenous lands, conservation parks and pastoral leases. Currently, there are 74 registered savanna carbon projects covering 25% of northern Australia that have generated

an industry worth more than \$100 million. The 20 Indigenous-led carbon projects create more than 400 seasonal jobs in remote communities, while at the same time reinvigorating traditional culture and improving biodiversity.

The International Savanna Fire Management Initiative (ISFMI) explored the feasibility of adapting Australia's ground breaking savanna burning methodology for Asia, Africa and Latin America. The ISFMI found widespread interest as this methodology could deliver the types of outcomes seen in Australia, such as, market based mitigation and adaptation, as well as economic and social benefits directly to communities in fire prone landscapes around the world. See [www.isfmi.org](http://www.isfmi.org) for more detail.

Wildfires are a dominant feature of southern African landscapes. These fires produce significant greenhouse gas emissions, threaten wildlife tourism, reduce agricultural productivity and damage ecosystems. Building on the success of the ISFMI, this exciting new project will work with host governments and local partners to implement savanna burning at pilot sites in Botswana and neighbouring countries.

Over the next four years the ISFMI Botswanan Pilot Project; led by a unique corporate, community and research partnership, and supported by an investment of AUD \$3.87 million from the Australian Government, will build a global community of best practice committed to local action on wildfire management.





## *Indigenous Carbon Industry Network*

The Indigenous Carbon Industry Network (ICIN) is an emerging network of more than 20 Indigenous savanna carbon project developers and supporting organisations from across northern Australia. ICIN members have produced over 2.8 million tonnes of carbon abatement and have established an industry in remote Australia which has generated an estimated \$56 million worth of carbon credits through Australia's Emissions Reduction Fund, compliance and voluntary markets. By 2025 it is estimated that Indigenous carbon projects across northern Australia have the potential to abate over 3.2 million tonnes of CO<sub>2</sub>-e per annum, provide 600 to 1,100 part-time or casual jobs for rangers and Indigenous land managers, and deliver significant environmental outcomes.

Warddeken Ranger Ray Nadjamerrek demonstrates early dry season burning techniques in WALFA Project, West Arnhem Land, Australia.

Photo: Warddeken Land Management.



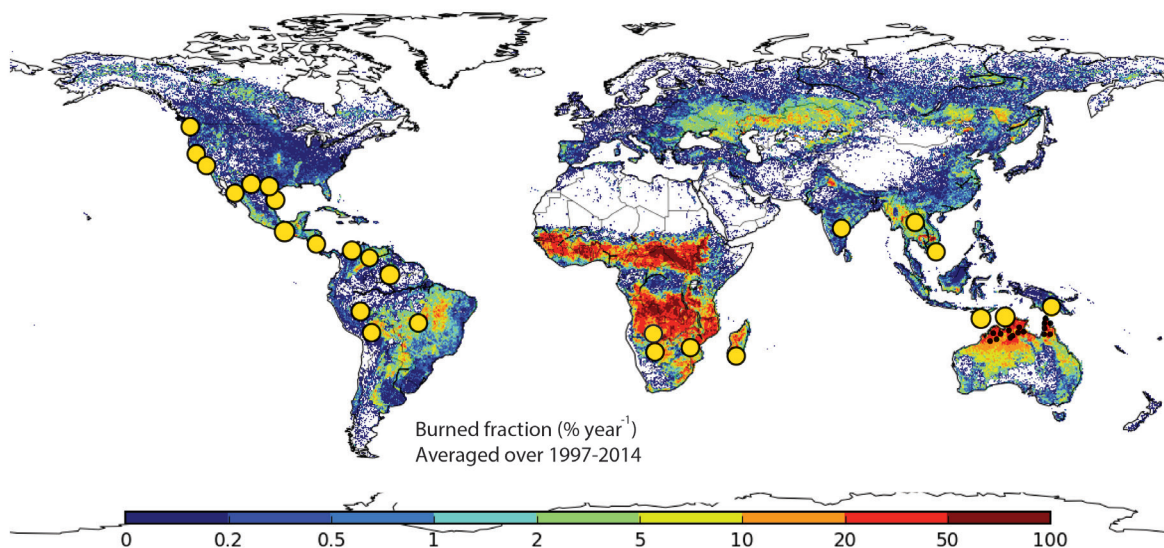
## What is the ISFMI?

In 2013 Australian Aid provided the United Nations University (UNU) AUD \$2.25 million to develop the International Savanna Fire Management Initiative (ISFMI) and explore the feasibility of adapting Australia's savanna burning technology for Asia, Africa and Latin America. The ISFMI found widespread interest as this technology could deliver the types of outcomes seen in Australia such as market based mitigation and adaptation, as well as economic and social benefits to poor and remote communities in fire dependant landscapes around the world – see [www.isfmi.org](http://www.isfmi.org) for details.

The ISFMI also established a network of experts and sites to promote awareness about the technology as illustrated below.

Building on the success of the ISFMI, the Department of Foreign Affairs and Trade (DFAT) has invested a further AUD \$3.87 million to test this technology in Botswana. The Botswana ISFM Pilot Project will play a critical role in exporting Australia's savanna burning technology to assist southern African countries meet their Paris Agreement goals.

## International Savanna Fire Management Initiative



## Emissions Reductions

Deploying Australia's Indigenous approach to savanna burning known as traditional fire management, can lead to reductions of wildfire GHG emissions by as much as a half, with significant further emissions mitigation through carbon sequestration over the long term. Traditional fire management is also known to deliver a number of co-benefits including asset protection, ecosystem

health, improved food security and agricultural practice. The technology draws on Australia's expertise and experience in developing methodologies for the emissions offset scheme and will transfer Australia's capabilities in professional services, particularly in carbon project development, monitoring reporting and (MRV) and carbon market design and development.

## Botswanan Pilot Site

Savannas are key ecosystems in Botswana. They are important for the people living in them and also make important contributions in terms of wildlife tourism, agriculture and biodiversity.

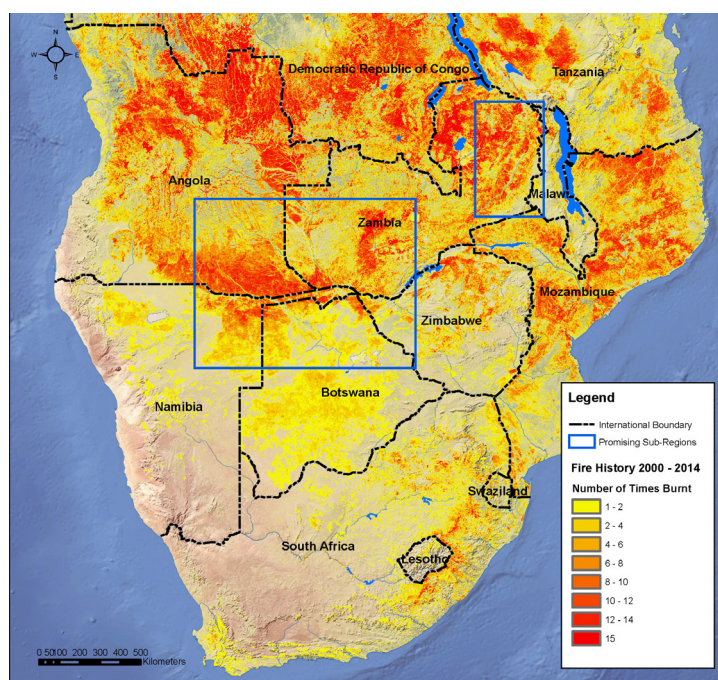
Botswana was chosen as the initial pilot for the ISFMI as it provides the best combination of geographic suitability and stable governance. The Kavango-Zambezi region is among the most affected globally by savanna fires and therefore an appropriate place to apply the fire management technologies akin to those used by Indigenous people in Australia. Agriculture and wildlife tourism are major economic activities in Botswana and both are affected by savanna fires, with fires in agricultural areas often disproportionately affecting women, who head the majority of rural households. The pilot will showcase the previous work of the ISFMI and include knowledge sharing with other countries in the Kavango-Zambezi region, including Namibia and Zambia.

Over four years the Botswana pilot will develop a supportive framework for fire management including advising on enabling laws, regulations, policies, savanna carbon methods and verification (MRV) platforms, as well as introducing an improved fire management regime. It will assist with free, prior and informed consent (FPIC) and local governance arrangements; develop baseline data sets; and support fire operations training and demonstration. Timeframes for the Botswanan pilot are outlined below, but ultimately this represents a leading example of climate related technology transfer and capacity building.

## This project aims to:-

- Develop the framework to support the adaptation of savanna fire management technology for Botswana;
- Continue the successful capacity development programme established the first phase of ISFMI; and,
- Expand the international ISFMI network and build an active community of practice.

### Fire History 2000-2014



Based on climate, ecosystem, biodiversity and human interaction characteristics the savanna carbon methodology is theoretically possible in three African Savanna Sub-Regions. The Southern African Savanna Sub-Region is considered more comparable to the northern Australian context and identified as the most feasible. The Kavango-Zambezi Sub-Region is situated in the Okavango and Zambezi river basins where the borders of Angola, Botswana, Namibia, Zambia and Zimbabwe converge as identified in the map. More detail can be found at: [www.isfmi.org](http://www.isfmi.org)

## Capacity Development

This activity will centre around annual international meetings which will include tailored training sessions for various stakeholders. Short secondments for Indigenous and local managers and government officers will be facilitated across the Network to explore emerging issues of a strategic nature to the ISFMI project such as: FPIC in the savanna context, benefit sharing agreements and business models, savanna burning and national GHG accounting, national adaptation and mitigation plans and nationally determined contributions, donor engagement strategies, financing models and measuring and valuing co-benefits.

## The ISFMI Network Expansion

This project will expand the existing ISFMI Network and develop its activities with the aim of building an active community of practice.

The ISFMI will leverage investment from other donors to complement its activities, particularly targeting additional pilot sites to engage in the Network.

## Project Governance and Outreach

The Botswana ISFMI Pilot Project and the ISFMI more generally, will going forward, be hosted by the Baker & McKenzie Law for Development Initiative who are the counter party to the funding agreement with the Government of Australia. The Kimberley Land Council, the Darwin Centre for Bushfire Research and Baker McKenzie are lead partners in the initiative responsible for project delivery. Additional partners will be engaged and the ISFMI advisory committee will be re-established during the project development phase.

The ISFMI website will be refreshed and used as an information portal for the ISFMI Network.

Events promoting the project will be organised at appropriate meetings like the UNFCCC meetings, the Carbon Market Institute's Australasian Emissions Reduction Summit and the Kimberley Ranger Forum.




Warddeken rangers from West Arnhem Land, Australia, shared fire management histories and traditional knowledge with rangers from Mudumu and Bwabata National Parks, North-east Namibia during an exchange in 2014.

Brazilian fire management activities on Terra Indigena lands were investigated during the first phase of the International Savanna Fire Management initiative.





A photograph of four Indigenous men, identified as Balangarra rangers, sitting on a rocky outcrop in the Kimberley region of Western Australia. They are gathered around a laptop computer, intently reviewing aerial imagery of burning fire scars. The men are dressed in casual, practical clothing like tank tops and shorts. The background shows a rugged, rocky landscape with sparse vegetation and a body of water in the distance. The lighting is bright, suggesting a sunny day.

Balangarra rangers in the Kimberley reviewing aerial burning fire scars.

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### *North Kimberley Fire Abatement Project*

In the Kimberley in the far north of Western Australia, Aboriginal people continue to practice traditional fire management. In early 2014, four native title groups from the region, Dambimangari, Wilinggin, Uunguu and Balangarra, with the assistance of the Kimberley Land Council, became the first Indigenous groups in Australia to register carbon projects using their exclusive possession native title rights. Known as the North Kimberley Fire Abatement project, it signalled a new era for income generation in remote Kimberley Aboriginal communities, and continues to deliver significant social, environmental and cultural benefits. You can find out more here <https://www.youtube.com/watch?v=izjtPs4a574>

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## Project Timeframe and Elements

	Year 1	Year 2	Year 3	Year 4
<b>Project Development Plan</b>				
<i>Project governance meeting</i>	■			
<i>Preliminary assessment</i>	■			
<i>Due diligence and scoping meeting</i>	■			
<b>Pilot Sites Activities</b>				
<i>FPIC</i>	■			
<i>Project site assessment</i>	■			
<i>Project domestic government support</i>	■			
<i>Baseline fire review</i>	■			
<i>Validated vegetation fuel type map</i>	■			
<i>Platform for MRV</i>	■			
<i>Methodological Development</i>	■			
<i>Fire Management Program for Pilot Sites</i>		■		
<i>Training for rangers and relevant government officials</i>		■		
<i>Equipment</i>		■		
<i>Marketing ecosystem services</i>			■	
<b>Capacity Development</b>				
<i>Annual capacity development meeting</i>		■	■	■
<i>Exchange programme</i>		■		
<b>International Network</b>	■			
<b>Project Management</b>	■			



International fire experts study the fire-history of North-east Namibia during an exchange in 2014.

Photo credits to Anja Hoffmann, United Nations University and Kimberley Land Council.



Balanggarra rangers plan their fire management operations in the East Kimberley, Australia in 2016