



Rupununi fire

Fire Management - Actions planned





LEVERHULME

Centre for **Wildfires,**
Environment and Society



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Contents

1. Background	4
2. Introduction	5
3. Governance	7
Education and Awareness Group	10
Traditional Knowledge	12
Fire Control Group	13



Background

Fire is intimately tied to local livelihoods, culture and the plants and animals in fire-adapted ecosystems such as savannas. In the Rupununi, fire is used for subsistence activities such as farming and grazing cattle, and Indigenous people have been using techniques such as savanna patch burning i.e. setting frequent, small, controlled fires over time, to create a patchwork landscape that acts as a natural firebreak limiting the spread of wildfires. However, with the erosion of traditional knowledge, changes in land use, governance, and climate unpredictability, uncontrolled fires are increasing causing negative impacts to habitats and property.

In this context, over twenty Indigenous representatives from the Deep South, South Central, Central, North and South Pakaraimas sub-districts of the Rupununi came together in Lethem on the 21st-23rd March 2023 to discuss ways forward with managing fire in the region. Organised by the South Rupununi District Council (SRDC) and the Leverhulme Centre for Wildfires, Environment and Society, UK, the Indigenous representatives spent two days discussing and formulating fire management recommendations, which were then presented to regional organisations, including NAREI, Rupununi District Council, Protected Areas Commission and Rupununi Livestock Producers Association, for their feedback on the third day. A final set of Rupununi Fire Management Recommendations were agreed by the Indigenous representatives, which were then taken to a workshop in Georgetown on the 27th March 2023 to engage national agencies.

On December 8th, 9th, and 10th 2023, a follow-up workshop was held with a smaller core of Indigenous representatives from the five sub-districts in the Rupununi. The purpose of this was to:

1. Review of draft recommendations and update on any progress
2. Discussion and identification of priority next steps and some planning on actions to be taken
3. Discussion and identification of any follow-up research to support priority next steps
4. Creation of a communication and engagement strategy

This document contains a set of priority actions to promote local fire management and mitigate wildfire risk by putting strategies in place that keep fire management decisions local, undertake research to examine impacts of fire, and limit fire spread by reducing fuel load. In this document, there are four main sections which may overlap in some areas:

- Governance
- Education and Awareness
- Traditional knowledge and practice
- Fire Control

Introduction

While there has been several fire research, projects, or interventions in the Rupununi (see figure 1), Guyana does not have a national policy on fire management. A National Wildfire Strategy developed in 2008 contained useful proposals but was never followed through. The impacts of fire on forests and the greenhouse gas emissions from burning are closely linked to the effectiveness of climate change mitigation programmes, yet there is no understanding of the fire/savanna/emissions relationship in the savannas. As Guyana proceeds with its Low Carbon Development Strategy (LCDS) and carbon credit payment schemes, fire will become increasingly significant as a key agent to consider in national policies.

It is important to consider what appropriate policies and plans can be implemented for Rupununi's fire management. Globally, research has shown that suppressive policies that seek to exclude fire from savannas do not work and result in fuel accumulation of dried vegetation which can increase the risk of larger, more intense wildfires when ignition occurs. This can have more severe economic and ecological consequences than if regular, controlled fires had been allowed. Savannas are often biodiversity hotspots, and many species depend on the natural fire regime for their survival. Suppressing fires can lead to changes in vegetation structure, negatively impacting the diversity of plant and animal species adapted to fire-prone environments. Fire also serves a way to control invasive plants that would take outcompete native plants.

Finally, Indigenous and local communities often have traditional knowledge and practices related to controlled burning that have been adapted to the local ecosystem. Ignoring or suppressing these practices may lead to a loss of valuable insights into sustainable land management. In summary, suppressive fire policies in savannas can be ineffective or counterproductive due to the complex interactions between fire, vegetation, and the diverse ecosystems. A more comprehensive and ecologically sensitive approach, considering the natural fire regime and incorporating local knowledge, is often essential for maintaining the health and resilience of savanna ecosystems.

The Rupununi, and Guyana, are in a place of opportunity to learn from these global lessons. There is space for state/private/community collaboration to design appropriate policy for Guyana's context, promote and support decentralised local fire management, mitigate wildfire risk, and create more opportunities for LCDS and the carbon market.

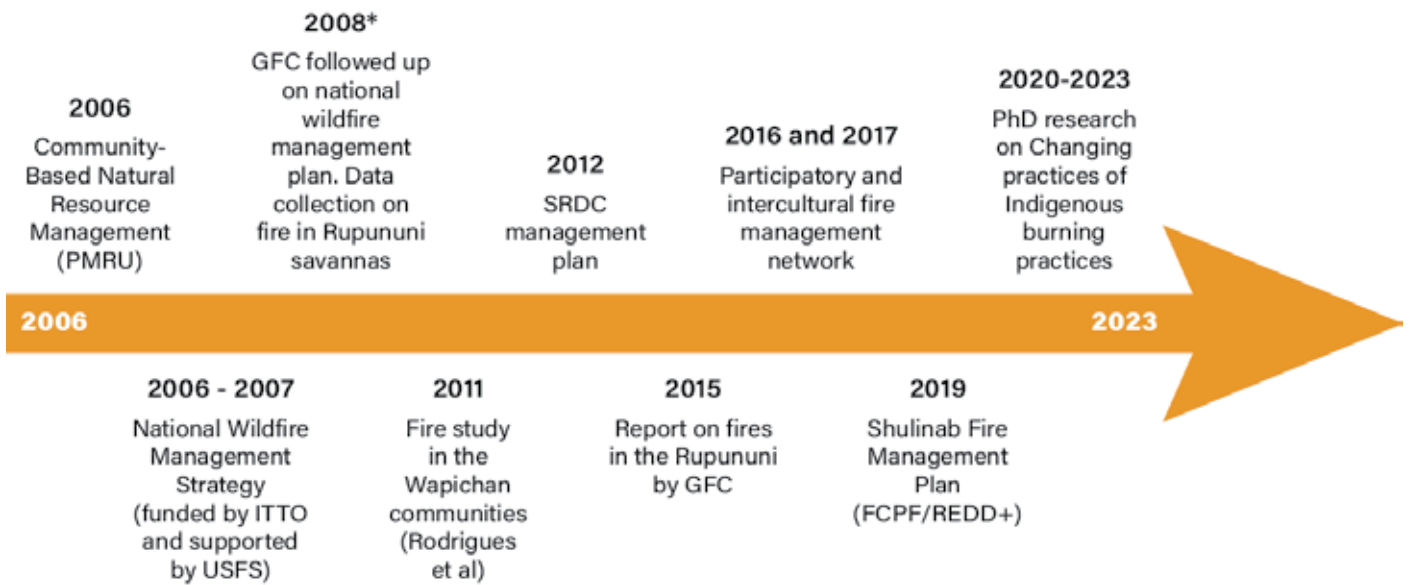


Figure 1: Brief overview of fire research, projects, and interventions in Rupununi.



Governance

Add fire management to Village Sustainability Plans (VSPs):

What		Who
Have an agreement at the Village General Meeting (VGM) to include fire management into the VSPs	Update the VSPs	Village Council Villagers Elders
How		When
Village meetings	Village clusters	2024
Resource users	Other groups	
Headmen		
Barriers		Mitigation
Internal difference among fire users	Lack of communication	Free Prior Informed Consent (FPIC) consultation at all levels Village rules Create a Terms of Reference for fire committee Fines (community service) Inter-community agreements
No interest	Inter-village issues on fire	
Monitor		
Record keeping		
Frequent meetings		
Reports on meetings, minutes, and actions taken		

Pilot communities create and share fire management plans

What	Who
Create fire management plans and committees in each community to help implement the plan	Kayla de Freitas to train community fire facilitators Village Councils District Councils Villagers User groups Elders Women, youths, shamans
How	When
1) Identify pilot communities to develop fire management plans. These communities will be models for the rest 2) Conduct FPIC, interviews, and build the plan and committee with the pilot communities 3) Get support for implementation and sharing of plan and lessons 4) Disseminate plan to other interested communities	2024 - 2026
Barriers	Mitigation
Communities unwilling to share information Funding for creating and disseminating of plans Clash of village time and activities Change of village councils Villagers' non-adherence to fire management plan	Refer to the Wapichan management plan to extract common interests Create inter-village agreements on common use areas/ boundaries with regards to fire use. Proposal writing for funding Clear plan of work for Fire Committee Develop a communication strategy Prompt follow-up Meetings to deal with reports Have clear objectives/benefits for villages
Monitor	
These activities will be put on a work plan with a timeline to keep track of progress Progress reports to VGMs, neighbouring villages, district councils and others	

Create a regional fire committee

What	Who
Facilitate discussions and fire management agreements between private/Protected Areas/Communities/State land tenure types.	Village Council Fire Committee District Councils Regional Democratic Council, other interest groups (Kanuku Mountains Community Representative Group, Conservation International-Guyana, Protected Areas Commission, Environmental Protection Agency, Guyana Lands and Survey Commission, Guyana Police Force, Guyana Defence Force, Ministry of Amerindian Affairs, Community Development Officers, Rupununi Livestock Producers' Association, South Rupununi Conservation Society and others
How	When
First regional meeting to introduce the programme Have village management plans and inter-village agreements to show as example to facilitate discussions with regional and other stakeholders Groups meet with their respective offices Second regional meeting to discuss ways to have a decision and agreement on ways forward. Composition of Regional Fire Committee and a ToR for Regional Fire Committee to manage fire at a Rupununi landscape level	2025 - 2026
Barriers	Mitigation
Differences in stakeholder interests Lack of political will Lack of funding	Using the current planning process of the village Contact and discuss with RDC, MoAA, other Ministries, and agencies that could lend support to the process Villages work with RDC to draft letters to relevant stakeholders at regional level on the development of fire management plans. Look for opportunities that exist with the Regional multi-stakeholder Conservation and Environmental working group at RDC
Monitor	
RDC and District Councils to take lead Registers and minutes of each meeting Signed agreements to be followed ToR for all stakeholders Regional agreement on landscape level fire management strategy	Reports from all stakeholders on fire activities Evaluation, review, and recommendations for improvements

Education and Awareness Group

Community meetings to raise awareness on fire management and fire management plan

What	Who
Hold village general meetings and awareness on fire management	Monitors Village Council Villagers Fire Committee
How	When
Village council, Villagers, fire management committee, and all resource persons create rules and regulations for fire management Make fire management a set topic for village meetings	Encourage all communities to do this before the next Toshao elections in 2024
Barriers	Mitigation
Access to materials - printed documents on fire management. Lack of financial support Village council unable to influence their villagers on importance of fire management	Work along with the Regional Democratic Council, District Councils, other villages who have fire management plans (e.g. Shulinab) because of their experience
Monitor	
Employ monitors or rangers that report to the fire management committee who also report to the village council	

Disseminate fire knowledge to a wider area

What	Who
<p>Create local content for radio programme in English and local languages, for e.g (specific to North – Eye on the Environment)</p>	<p>Village Councils</p> <p>Villagers</p> <p>Fire Management Committees</p> <p>Broad casters</p>
How	When
<p>Printed documents on fire management</p> <p>Source fire management documents from the South Rupununi District Council (SRDC) to share to other districts</p>	<p>Share and present these documents at the next general meeting and include in handover to the next council</p>
Barriers	Mitigation
<p>Financial support to access documents on fire management</p> <p>Shulinab failure to share their fire management document</p>	<p>Village Council and SRDC to share what they have</p> <p>Radio personnel and fire management committee to share</p>
Monitor	
<p>Village councils</p> <p>Villagers</p> <p>Fire management committee</p>	

Traditional Knowledge

Identify communities with traditional fire knowledge and use as an example

What	Who
Identify knowledgeable elders	Village Councils
Share experiences with pilot villages	Villagers
Peer to peer exchange (KMCRG /SRDC /NRDDB /KDC)	District councils
Review and adapt a fire calendar to suit location per village/district	Knowledge holders Conservation bodies (CI, Iwokrama, SWM etc)
How	When
Village Council discussions with fire committee and community based organisations	Identify the knowledge holder now
Consult community members	Within the lifespan of a VSP
Approval at VGM	
Implement the action plan	
Barriers	Mitigation
Traditional knowledge has been preferably passed onto males versus females	Both genders should have equal opportunity for traditional knowledge
Change of leadership in the village council and at national level > change in priorities	Village leaders should respect and continue to implement VSPs
Unpredictable weather patterns	Proposal writing and lobbying
Financial accessibility	
Language	
Monitor	
Fire committee reporting at village meeting	
Verbally using English and local language	
Documenting through videos and photographs	

Training in fire prevention (traditional and combative techniques)

What	Who
Identify key traditional knowledge holder of the use of fire	Village councils
Practical training and videoing and video training materials	Fire management committee
Training in non-traditional methods and equipment	Fire service
Develop step-by-step manual	Local managers
Training of trainers	Monitors/rangers
Exchanges on fire management	Technical/resource people
Work closely with village fire plan	District council
Identify pilot villages (4)	
How	When
Compile a training document	Within the next two years
Establish a relationship with the fire service	
Training of trainers	
Training of monitors/rangers	
Barriers	Mitigation
Funding	Seek support from the government and NGOs
Uncertain of Guyana Forestry Commission relationship	Explore other technical support and exchanges
No fire management plan	Work with communities who have started the process
Monitor	
Develop and M&E plan	
Quarterly reports/activity reports	
Village councils, fire committee, district council, fire service	

Monitoring and collecting of fire data

What		Who
Create maps of vulnerable areas and places that need burning		Village council/district council
Procure monitoring equipment (GPS, drones, satellite images etc)		Fire management committee
Develop monitoring plan		Fire service
Compile past and present information		Village monitors/rangers
Survey information		Technical resource persons: Environmental Protection Agency, university of Guyana, Hydromet, and other institutions
How		When
Establish a monitoring department at a district level		Within the next two years
Develop a data bank		
Monitoring plan		
Monitoring by rangers		
Make a report of findings		
Barriers		Mitigation
No funding		Seek support from government and NGOs
Lack of support/equipment		
Monitor		
Quarterly reports/activities reports		
Keep track and record meetings and activities and deadlines effectively		

Participants in December 2023 workshop that prioritised actions from a larger document:

Sylvester Fredericks - Nappi Village Council
Jacintha Realine – Aishalton /South Rupununi District Council
Helita Edwards - Karasabai Village
Michael Williams - Annai Toshao/North Rupununi District Development Board
Shamir Khan - Yupukari Toshao
Gregroy Rodrigues - Karasabai Village
Bernadina Pio - Karasabai Village
Angelbert Johnny – Sawariwau /South Rupununi District Council /South Rupununi
Conservation Society
David Albert - Karasabai Village
Joylyn Farias - Nappi Village Council
Nicholas Fredericks - Shulinab Village Council
Jay Misty - Royal Holloway/Leverhulme Wildfires Centre
Kayla de Freitas - Royal Holloway/Leverhulme Wildfires Centre
Kid James - Aishalton/South Rupununi District Council
Frank Johnny - Sawariwau/South Rupununi Conservation Society
Denisio Joseph - Sawariwau Village
Akeem Williams - Annai
Gavin Winter – Aishalton /South Rupununi District Council