



Equitable Fire Management in Ghana

Policy Brief



LEVERHULME
Centre for Wildfires,
Environment and Society



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Key Points

1. Achieving inclusive fire management in Northern Ghana savannas requires recognising and distinguishing the different types of fires on the landscape and being clear about the terminologies used to describe them.
 2. Fire policies and projects in Northern Ghana should define early burning based on ecological conditions such as vegetation, moisture content, and weather patterns rather than fixed calendar months. This approach aligns with local knowledge systems and ensures that early burning practices are more effective and context specific.
 3. There is a need to integrate traditional fire knowledge into policy development since relying solely on Western scientific knowledge as evidence for fire policy formulation undermines traditional fire knowledge.
 4. Inclusive fire management also requires recognising the complexity of communities and valuing the fire knowledge of herders and migrants.
 5. Sustainable fire management requires collaboration across different groups, including chiefs, earth priests, women, herders and other migrants.
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Fire Management Inequalities in Northern Ghana

In recent years, the prevalence of wildfires has become a major concern for societies across the globe. Research shows that climate change is poised to increase the frequency of wildfire risk, particularly in areas where fuel remains abundant. In Northern Ghana savannas, landscape burning by local communities plays an important role in shaping the composition and structure of savanna ecosystems. Also, these fires are used as a tool in land management, enhancing livelihoods, preventing devastating

fires from destroying homes, and for cultural ceremonies (1).

However, in practice and policies, these fires are discursively framed as ‘bushfires’ and ‘wildfires’ and carry connotations of uncontrolled burning. Additionally, the various data sources about fires (e.g. reported cases, remote sensing, local knowledge) can lead to misunderstandings between stakeholders (2). These misinterpretations can unfairly penalise traditional burning practices (by farmers, herders, hunters) in the name of national aims to reduce carbon emissions or biodiversity loss. This

enduring narrative has been linked to environmental degradation and food insecurity issues, with management focused on fire prevention and suppression policies. However, the persistent burning practices in the area highlight a discrepancy between these policies and actual burning practices.

An analysis of burned area trends based on data from different satellite sensors (MODIS and Landsat) between 2001 and 2022 reveals divergent trends: **Large fires (assessed with MODIS) appear to be decreasing, while smaller fires (assessed with Landsat) show a slightly increasing trend** (Alare – In prep). Although policies often rely on Western scientific knowledge like remote sensing, **the spatiotemporal analysis of burned areas did not provide strong evidence for the observed trends in MODIS and Landsat datasets.**

Moreover, policies and projects tend to promote early burning without explicitly defining what it entails and rely on November as the month for early burning. An analysis of the spatiotemporal trends of fire seasonality using MODIS active fires from 2001 to 2022 revealed notable shifts in fire seasonality in Northern Ghana. The findings indicate **a decrease in early burning (November and December), but an increase in fire activities in the mid-dry season, specifically in January and February.** This suggests that current fire management strategies may not be aligned with the actual fire dynamics of Northern Ghana, especially as climate change impacts the area.

Additionally, there is an emphasis on the need for inclusive fire management and sustainable development (3–5). However, in Northern Ghana, there is a lack of clarity on how to implement this effectively. Current community fire management interventions exclude herders and restrict their access to key resources. This exclusion has transformed the previously

synergistic relationship between herders and farmers, exacerbating conflicts between these groups in Northern Ghana. Moreover, people use fire in various ways, which can impact each other. Currently, community-based fire management interventions often overlook the internal political dynamics within the community. The stories below highlight these political dynamics at the community level:

Burning barriers: A herder's fight for a voice in sustainable fire management

Diallo was a toddler when his family migrated from Burkina Faso to Northern Ghana in the 1980s to herd cattle. For nearly 40 years, he has lived and herded cattle in Murugu, yet he has rarely been engaged in community meetings about environmental matters. He and other Fulbe herders in the community are often blamed for setting fires in the bush or destroying tree-planting projects and crops. Although he sees frequent community gatherings in Murugu town centre, he has not been invited to participate, preventing him from attending. Diallo represents a group of marginalised migrants excluded from contributing to decision-making that can promote sustainable fire management.



Figure 1: A herder tending cattle in Northern Ghana (© A Rocha Ghana 2025)

Shared flames, shared responsibility: collaborating for sustainable fire management

Baba and Saaka serve as Earth priests ('Tendana') in two communities in the Savannah Region. As Tendanas, they offer sacrifices to the gods for spiritual cleansing and the well-being of community members. During the dry season, they often conduct spiritual rites that include burning a portion of the landscape. Following this rite, community members can burn for any livelihood activity.

Last fire season, Saaka carried out these rites in his community, which allowed hunters to burn the bush to hunt for game. However, the fires escaped and spread to Baba's community, where burning had not yet occurred. As a result, these escaped fires destroyed farms and other properties. Considering this, Baba and Saaka are now advocating for an association of Tendana to coordinate the timings of spiritual rites. This will help prevent fires from escaping from one community and affecting another.



Figure 2: An Earth priest demonstrating how fire is set for cultural and spiritual purposes (Credit: Rahina Sidiki Alare, 2023)

Opportunities for promoting Inclusive Fire Management in Northern Ghana

- Early prescribed burnings can enhance biodiversity (6), reduce large destructive fires, and provide various socio-cultural services to local communities.
- The availability of research interest and expertise among universities in Northern Ghana, such as University for Development Studies, C. K. Tedam University for Technology and Applied Science, Millar Institute for Transdisciplinary and Development Studies, and S. D. Dombo University of Business and Integrated Development Studies.
- Training and capacity-building opportunities in fire ecology, monitoring and management.
- There is a growing interest among stakeholders in fire management. For example, a workshop organised by the Leverhulme Centre for Wildfires, Environment and Society, a global wildfires centre based in the UK, in collaboration with the civil society organisation A Rocha Ghana, led to the establishment of a network of fire management practitioners in Northern Ghana. This network includes researchers, traditional authorities, state institutions, NGOs, herders, hunters, farmers and women group leaders.

Recommendations

Promoting Inclusive management: To upscale fire sensitisation and volunteers across communities in Northern Ghana, state institutions (e.g., Ghana National Fire Service, Forestry Commission, Department of Agriculture, National Disaster Management Organisation) and NGOs promoting conservation should promote inclusivity by considering local fire knowledge and include sedentary herders and other migrants in community fire management.

Coordinating cultural burning: Metropolitan, Municipal and District Assemblies in collaboration with NGOs should promote the formation of an association of Tendanas ('Earth priests') to coordinate and streamline cultural practices that require landscape fires.

Recognising controlled burning: Institutions promoting land restoration projects that exclude fires in the landscape must recognise that fire shapes and maintains the composition of savanna ecosystems. Therefore, to ensure the sustainability of such projects, and to reduce the risk of large destructive fires, it is important to establish appropriate land use systems and acknowledge the significance of controlled and prescribed burning practices in savanna ecosystems.

Appropriate monitoring: To effectively monitor real-time and remote fires, researchers, government agencies and NGOs should support and enhance the capacities of relevant stakeholders, such as the Forestry Commission, Ghana National Fire Service, and National Disaster Management Organisation. The capacity building should focus on using the most appropriate methods for landscape fire monitoring.

Timely weather-related information: Providing communities with timely, local weather-related information can improve decisions on when to burn and minimise the risk of large destructive fires.

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Find out more:

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