
Fire as a Resource

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Perceptions of Bushfires

Bushfires are an emotional issue throughout the world. Most people's exposure to bushfires is through mass media, and is centred on danger and destruction with loss of life, property and environment reported. Witnessing these events naturally leads many to the conclusion that bushfires are disasters and should be prevented.

Management approaches to bushfires usually involve suppression tactics where the lighting of fires is discouraged, firebreaks are constructed and resources are directed toward extinguishing bushfires when they occur. It is possible to suppress fires for a number of years with sufficient resources and intensive management. However, it is very difficult to completely remove fire from many environments and this approach simply postpones bushfires to times of extreme climatic conditions (very hot, dry and windy), when suppression tactics are ineffective. Coupled with the build up of fire fuel load (grass, leaves, etc) over the years of suppression, bushfires reach disastrous proportions and warrant media attention. Witnessing these events naturally leads many to the conclusion that bushfires are disasters and should be prevented - and the cycle continues.

Fire has been a regular occurrence in savanna ecosystems in Africa for thousands of years. Commonly, bushfires are characterised as 'natural' fires ignited by lightning or 'unnatural' fires from human sources. The 'unnatural' fires are often regarded as a *recent* phenomenon and responsible for the disastrous bushfires reported in the media. Realistically, these 'unnatural' fires have been occurring for as long as people have been using fire - probably tens of thousands of

years. The savanna ecosystems have evolved alongside these 'unnatural' fires, which indeed have become a 'natural' component of savannas.



Bushfires in Caprivi

The Caprivi Region is considered a semi-arid tropical savanna ecosystem with very distinct wet and dry seasons and frequent bushfires every year. Perceptions of fire in Caprivi also centre on disasters, however, there is recognition that fire is a necessary part of the landscape and a useful resource management tool.

Throughout the past decades Caprivi land administrators have practiced bushfire suppression tactics. This approach has led to a fire regime dominated by late dry season fires with the majority (85%) occurring between August and October. Climatic conditions are hot, dry and windy at this time of year and lead to intense uncontrolled fires that travel quickly and burn extensive areas at a time.

Fire frequency is low around settlements and increases with distance away from settled areas. National Parks and other unpopulated areas (ie State Forest) experience medium – high fire frequency.

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This pattern of fire frequency has been occurring for at least 17 years. Repetitive fire regimes (fire frequency, timing & intensity) lead to homogenous ecosystems with reduced biodiversity, productivity and land use in Caprivi. These effects are becoming increasingly apparent and involve habitat for wildlife, pasture for cattle and harvesting of natural products.

Fire as a Resource

Bushfire Management in Caprivi is taking a new direction and focuses on using Fire as a Resource by taking control of when, where and how fires occur. Controlled Burning is used as an effective tool in managing Wildfires, Land Use and the Environment.

To diversify fire regimes controlled burning is used to vary the Timing and Spatial Pattern of fires throughout the year. Commencing controlled burning in the early dry season establishes a patchwork mosaic burn pattern throughout the landscape.



Patchwork Mosaic Burn Pattern

This strategy minimises the occurrence, intensity and extent of Wildfires later in the dry season by reducing and fragmenting fuel loads. It is used to enhance Land Use through balancing immediate and future resource availability - ie cattle grazing and natural products (thatching grass, timber). Ecotourism and professional hunting also rely directly on the Environment. Variation in fire regimes provides diversity in spatial and temporal habitat and increases biodiversity.



Wildebeest attracted to 'Green Bite' following Fire

Effective fire management must be implemented by the 'land managers' operating on the ground. The Caprivi Community plays a pivotal role as 'land managers' with 70% of Caprivi under Communal administration. Property specific Fire Management Plans are developed to integrate objectives and implement safe and efficient controlled burning.



Community implementing Controlled Burning

Collaborative efforts between the Directorate of Forestry, Integrated Rural Development and Nature Conservation, Community Forestry of North Eastern Namibia, Ministry of Environment and Tourism with the local community including Communal Area Conservancies and Community Forests have been instrumental in pioneering this Bushfire Management approach.

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