

Risk Assessment of Wildfires in Budongo-Bugoma Landscape



The study underscores the need for a comprehensive national wildfire strategy that considers the ecological and socio-economic implications of fire in the different land cover types.

Recommendations

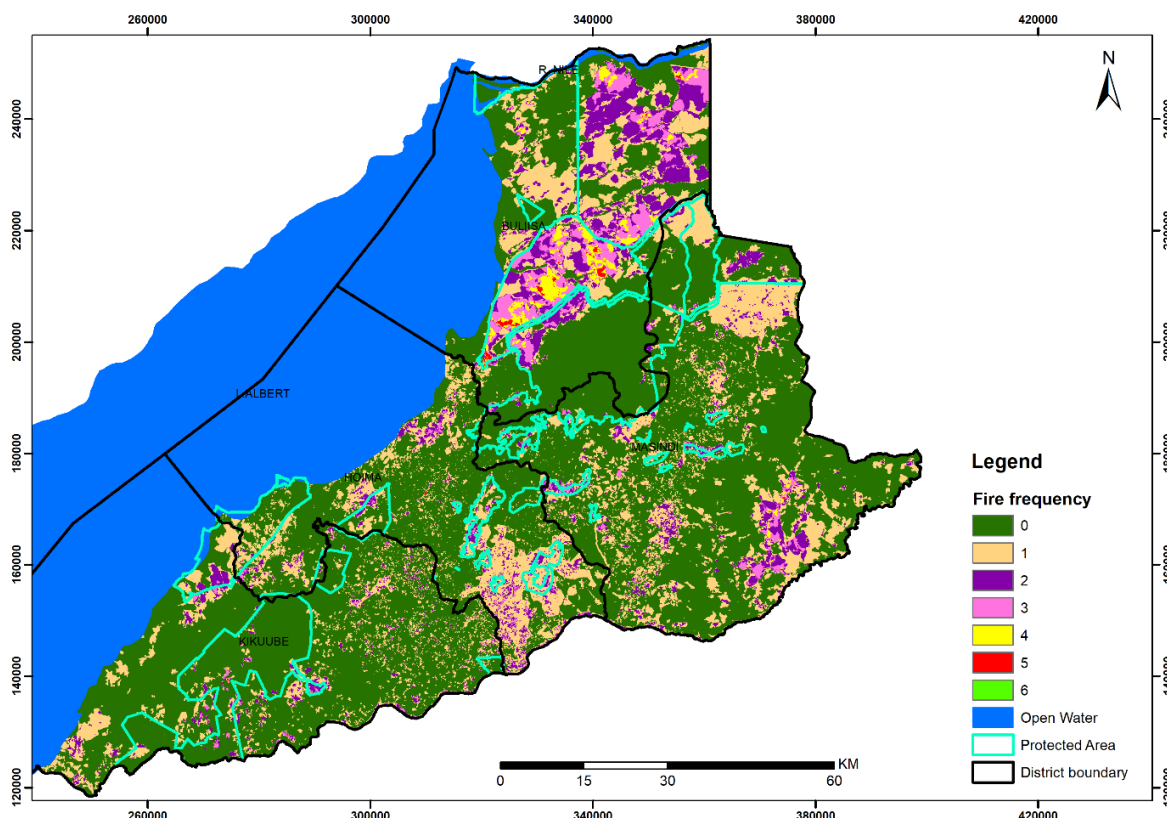
1. Develop specialized fire management strategies for areas where there are flammable resources e.g. oil and gas, and the associated infrastructure, occur.
2. Encourage uniform farmland and plantation forest owners to develop fire management strategies for their estates.
3. Sensitize communities on the detrimental risks of fires and strategies of containing the fires without causing a lot of damage.
4. Integrate elements of wildfire management in the sub county and district planning and budgeting processes.

Key findings

1. At least 34% of the landscape has experienced fire at any one point in the past during the study period.
2. Big expanses of the landscape were burnt during the dry season especially in the longer season (December-March) and less frequent in the shorter dry period of June-August.
3. The most affected land uses in order of the severity were; Grassland, woodland, Coniferous plantation, wetland and bushland whereas tropical high rainforests were the least affected. Notable areas burnt include; the grassland and bushland areas in Buliisa District, the southeastern part of Masindi district and the rift valley part of Hoima and Kikuube districts.
4. Buliisa ranked highest with the highest frequency of burning (2-4 times) being covered majorly by grasslands and woodlands which are highly flammable whereas Kikuube district had the least burnt area.
5. Protected areas such as; Kabwoya and Bugungu Wildlife Reserves also received frequent fires although it is not clear if these were orchestrated by the wildlife managers or the surrounding communities. Other areas include the wetlands along River Kafu (eastern boundary of Masindi, Hoima and Kikuube districts) and the tributaries of R.Kafu in Masindi district as well as the sugarcane plantations south of Budongo forest and coniferous woodlots.
6. The year 2005 had the highest percentage (32%) area burnt followed by 2001 with 17 % and 2022 had the least. Notable to note is Buliisa had the highest percentage (88%) area burnt in 2005 and Kikuube registered the lowest all throughout the years.
7. The following factors cut across the landscape as causes of wildfire; agriculture, hunting, charcoal burning, pastoralism, rangeland management, settlement by refugees for the case of Kikuube and commercial farming of maize and sugarcane in Hoima and Masindi districts.

Study Area and methods

Fires traditionally used in Africa for clearing land for agriculture, harvesting honey and refreshment of grass for wildlife and livestock have unfortunately become detrimental leading to loss of livelihoods and natural resources. A fire risk assessment was therefore conducted in the Budongo-Bugoma landscape (Masindi, Buliisa, Hoima, and Kikuube districts) for the years; 2001, 2005, 2010, 2015 & 2022. Landsat satellite images of the landscape were obtained for the above years and burnt areas mapped in the different land use types and districts (see map). These images were then validated for accuracy in stakeholder workshops held at district levels.



This policy brief aims to inform policymakers, land managers, and stakeholders about the importance of developing targeted fire management strategies and risk assessment measures to mitigate the impact of wildfires in the Budongo-Bugoma landscape and beyond. It has been produced under the framework of the Green Livelihoods Alliance funded through the 'Forest for a Just Future Program' implemented under the Netherlands Ministry of Foreign Affairs. The opinions and views expressed in this publication are the sole responsibility of the authors and do not necessarily reflect the opinions and views of Tropenbos International or its partners.

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For more information, contact:

Richard Ssemamanda - richard@ecotrendsalliance.org

Michael Opige - michael@ecotrendsalliance.org