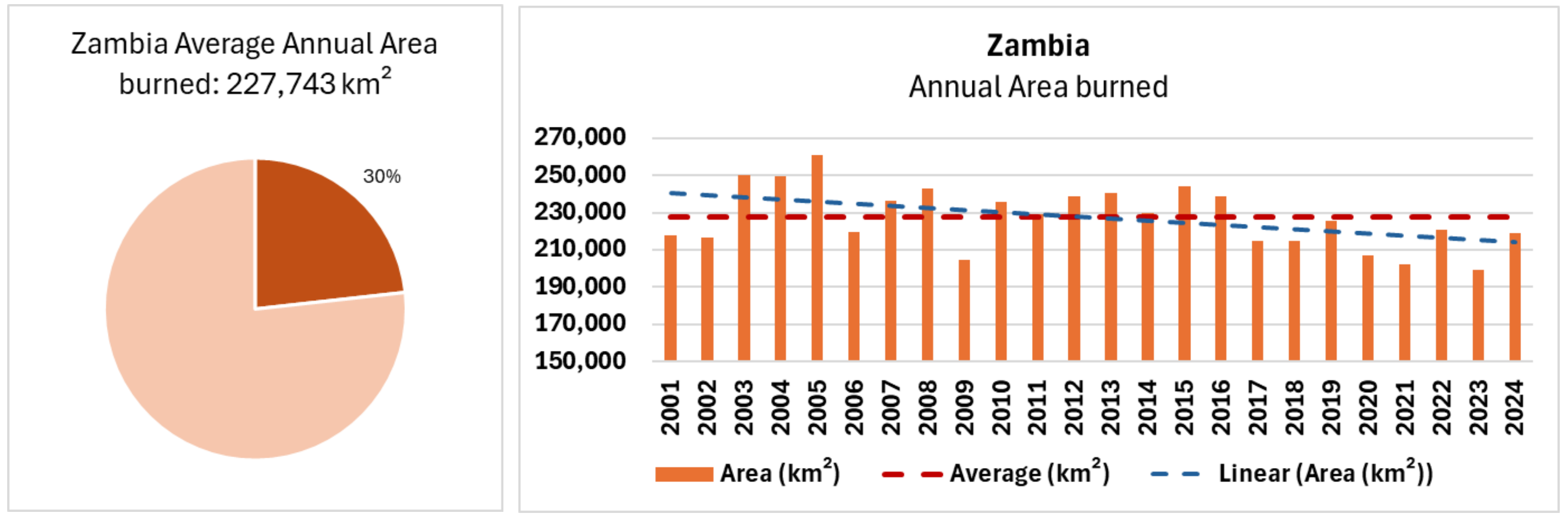


Zambia's Fire Regime

An analysis from 2001 to 2024

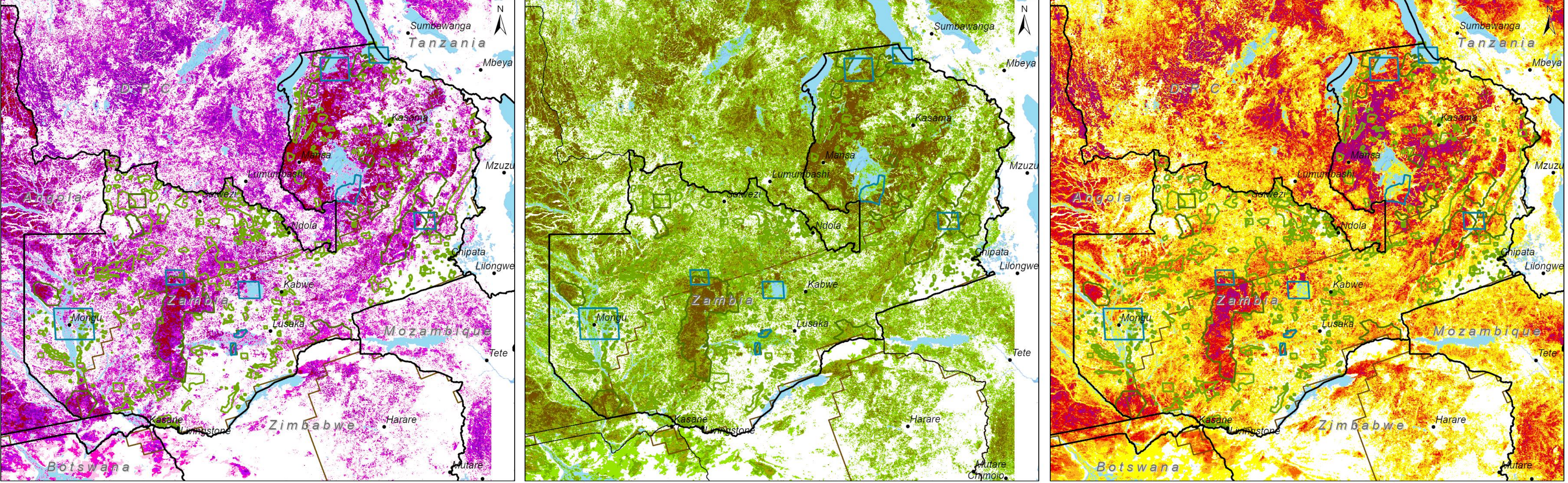
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Wildfire Trends in Zambia

According to satellite-based MODIS MCD64A1 version 6.1 burnt area fire data from 2001 to 2024 , an average of around 30 % of Zambia's land surface area, corresponding to almost 328 000 km², burns every year due to a small percentage of naturally occurring wildfires and mostly due to anthropogenic actions. Anthropogenic fires are driven by slash-and-burn for land clearing and agricultural practices and for poaching practices in Zambia. Between 2001 and 2024, the years 2003 to 2005 were the most catastrophic for Zambia with about 250 000, 250 000 and 261 000 km² burned respectively, mainly due to anthropogenic drivers. Consequently, human-induced fires are significant drivers of deforestation and loss of forested areas, detrimentally affecting their biodiversity and ecosystems in Zambia. Disconcertingly, fires are also set in Zambia to aid the harvesting of devil's claw.

While fires are a natural historically occurring characteristic of the southern African landscape and essential to ecosystem health, slash-and-burn and other anthropogenic practices are leading to very high burn repeat frequencies.



Areas vulnerable to repeat burning

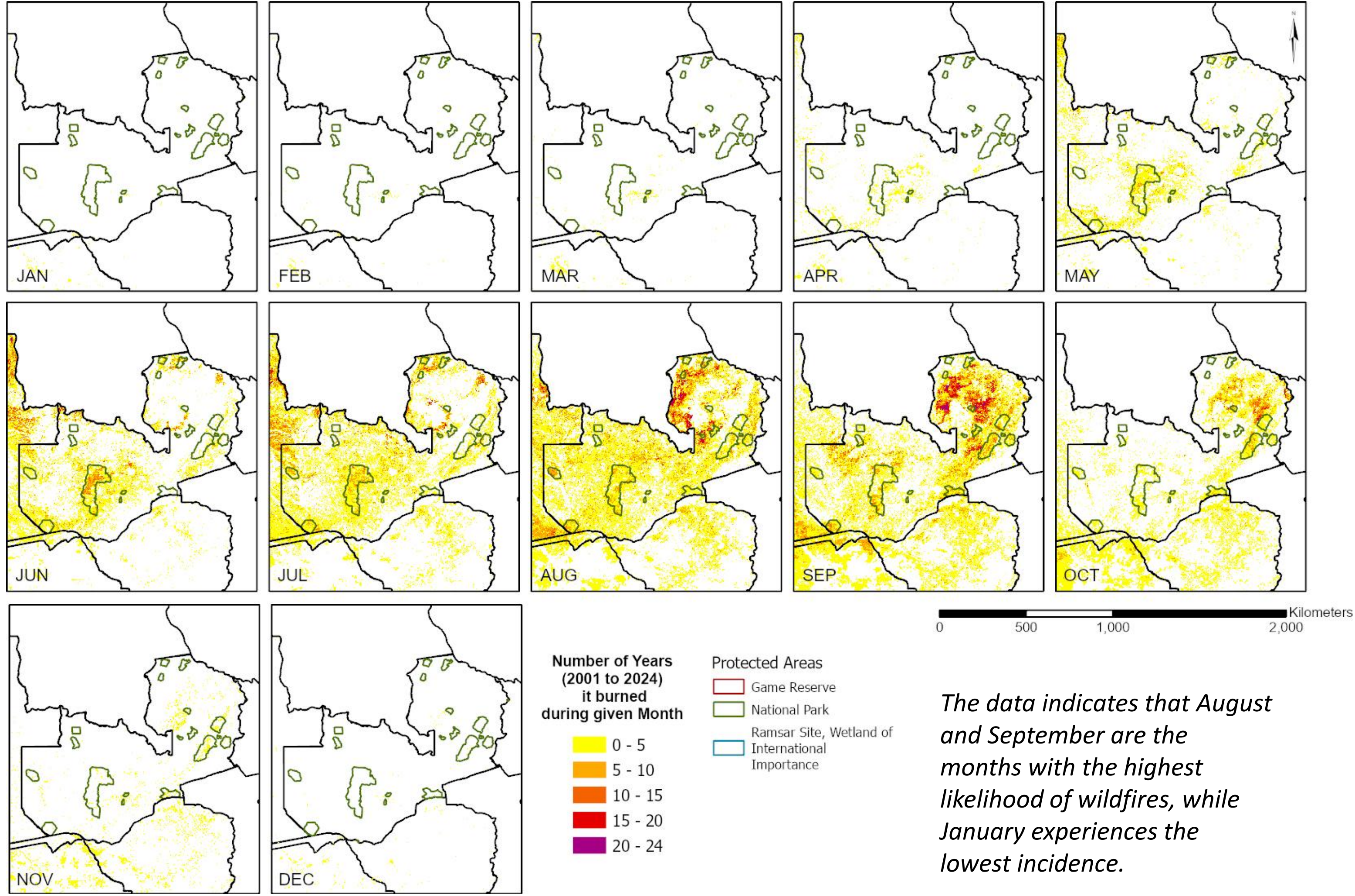
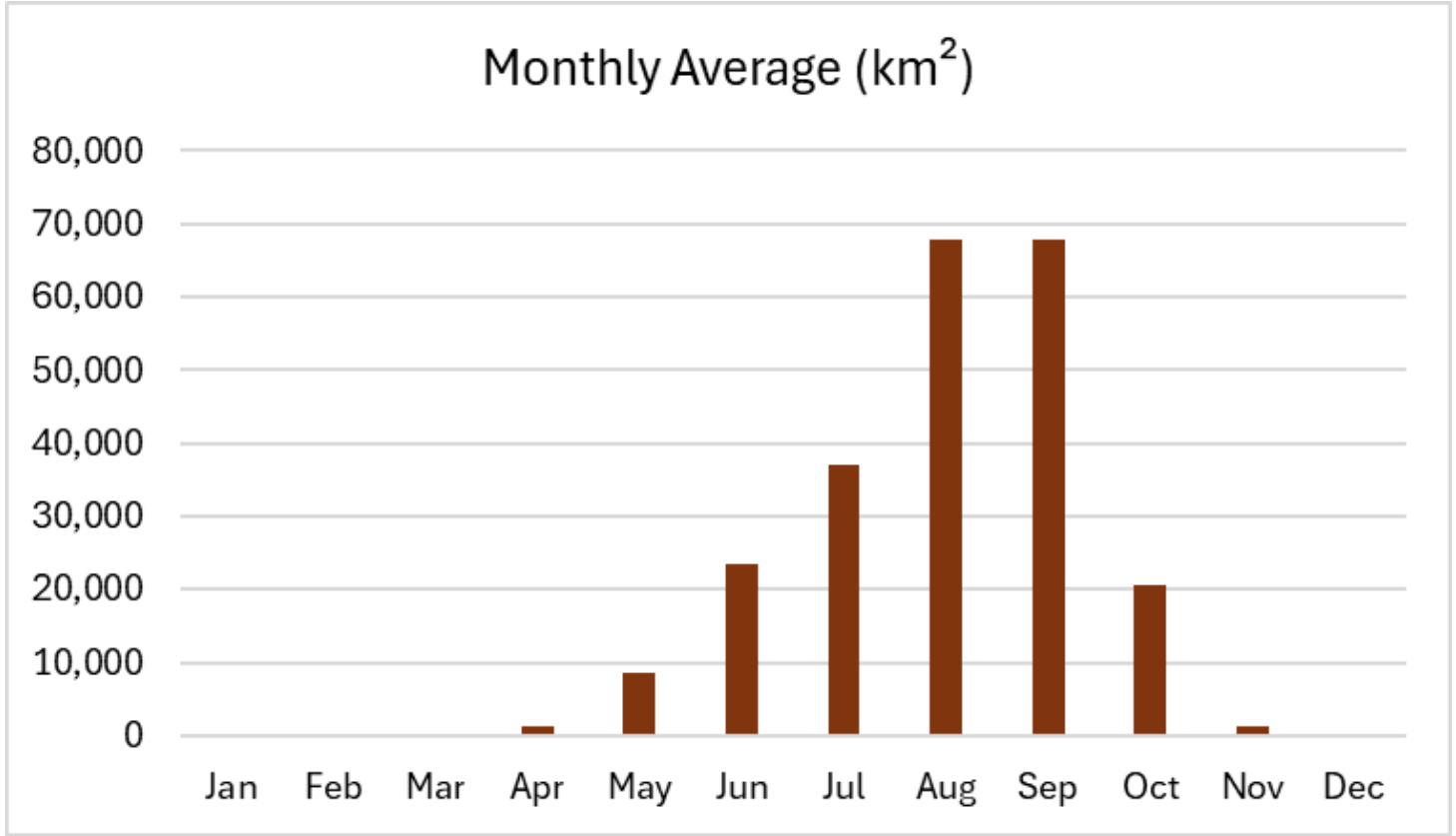
Large areas in Zambia have burned every year since 2001, in particular in Kafue National Park, in and around Sioma Ngwezi National Park, in Liuwa Plain National Park and in scattered areas of the north-eastern parts of Zambia. Burning in Kafue National Park is showing an increasing trend.

High frequencies of burning are a particular concern for sensitive ecosystems and may cause irreversible damage to the biodiversity of these areas.

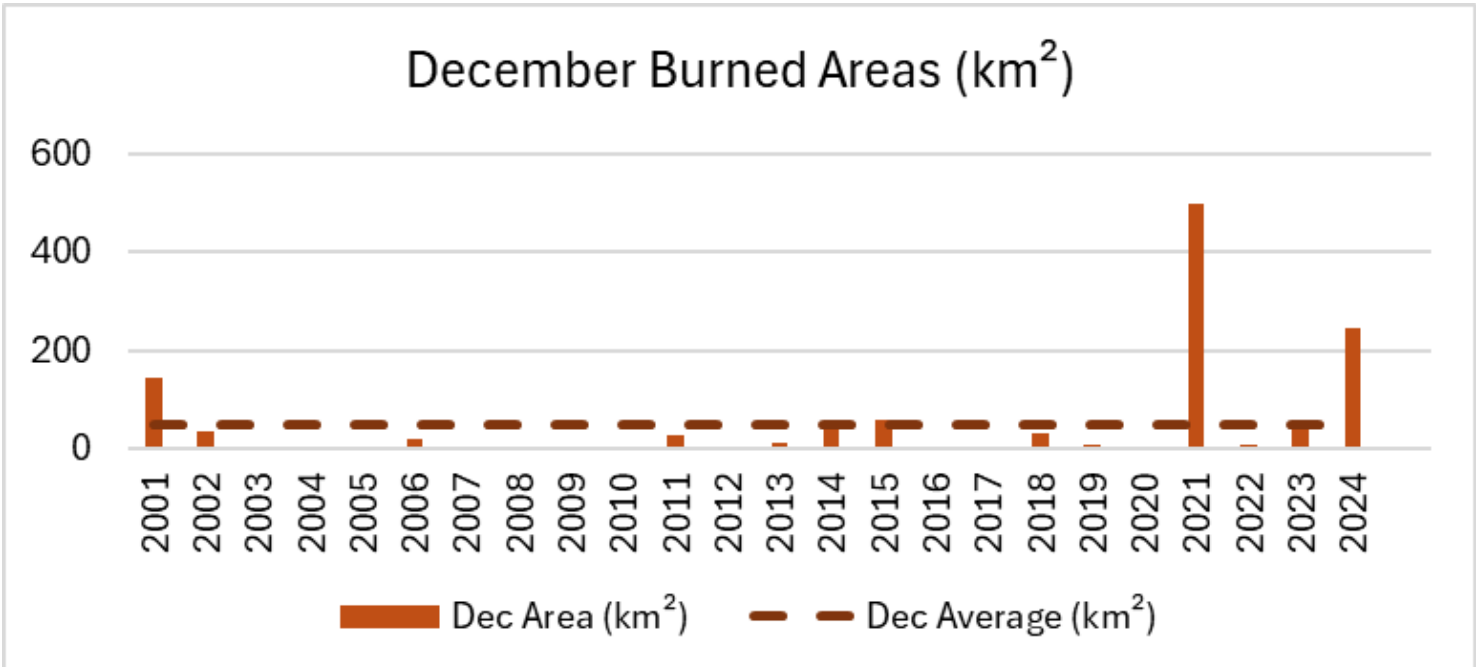
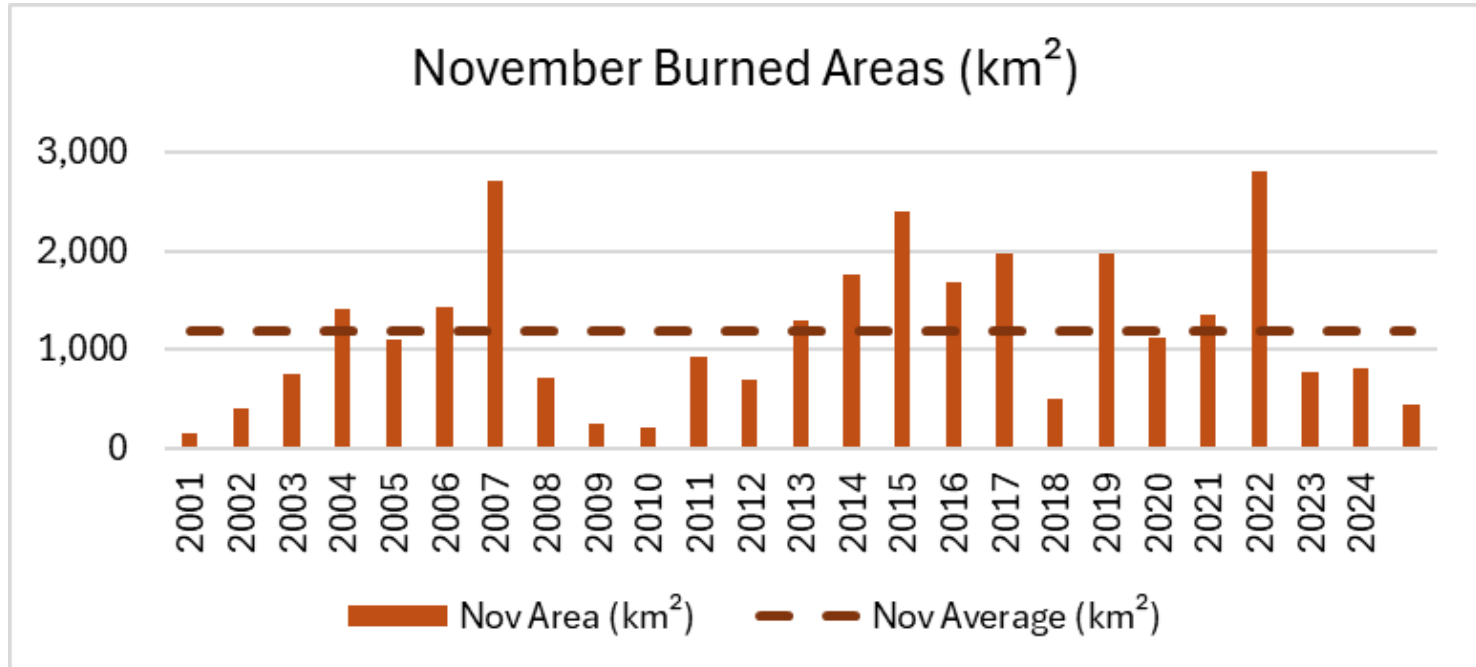
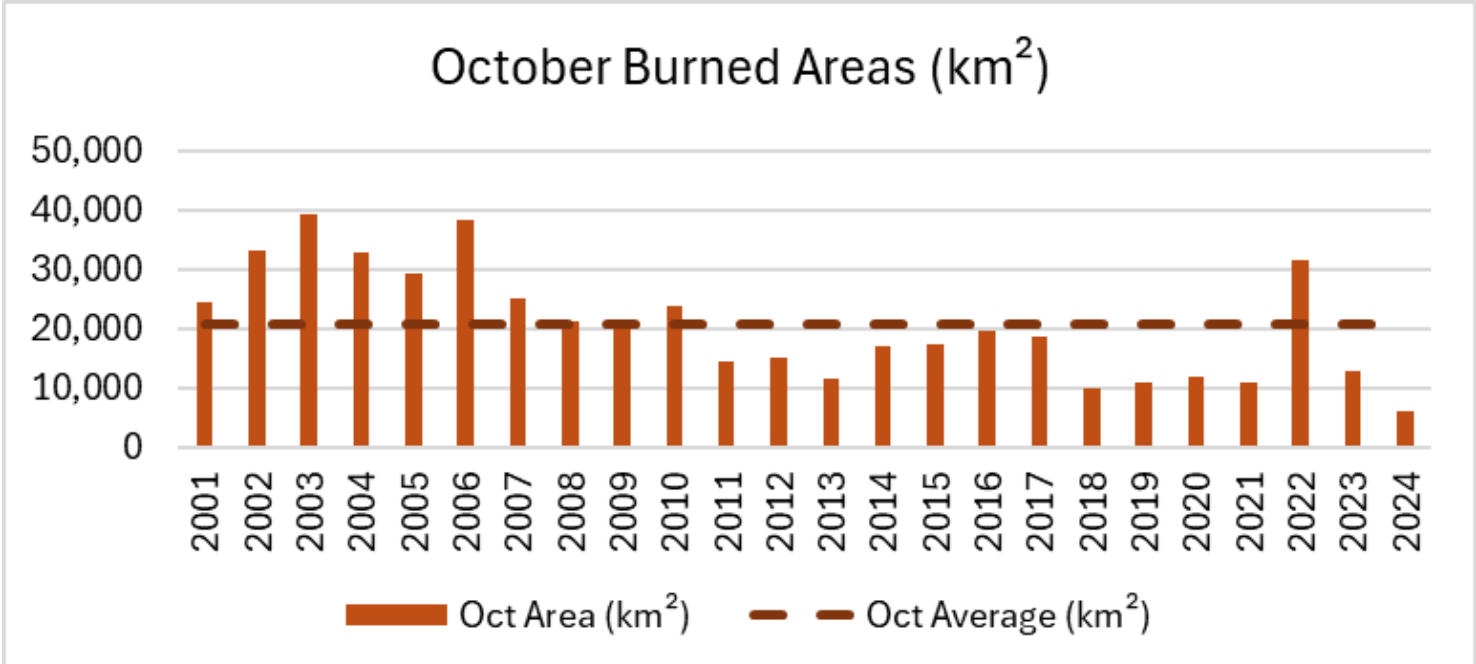
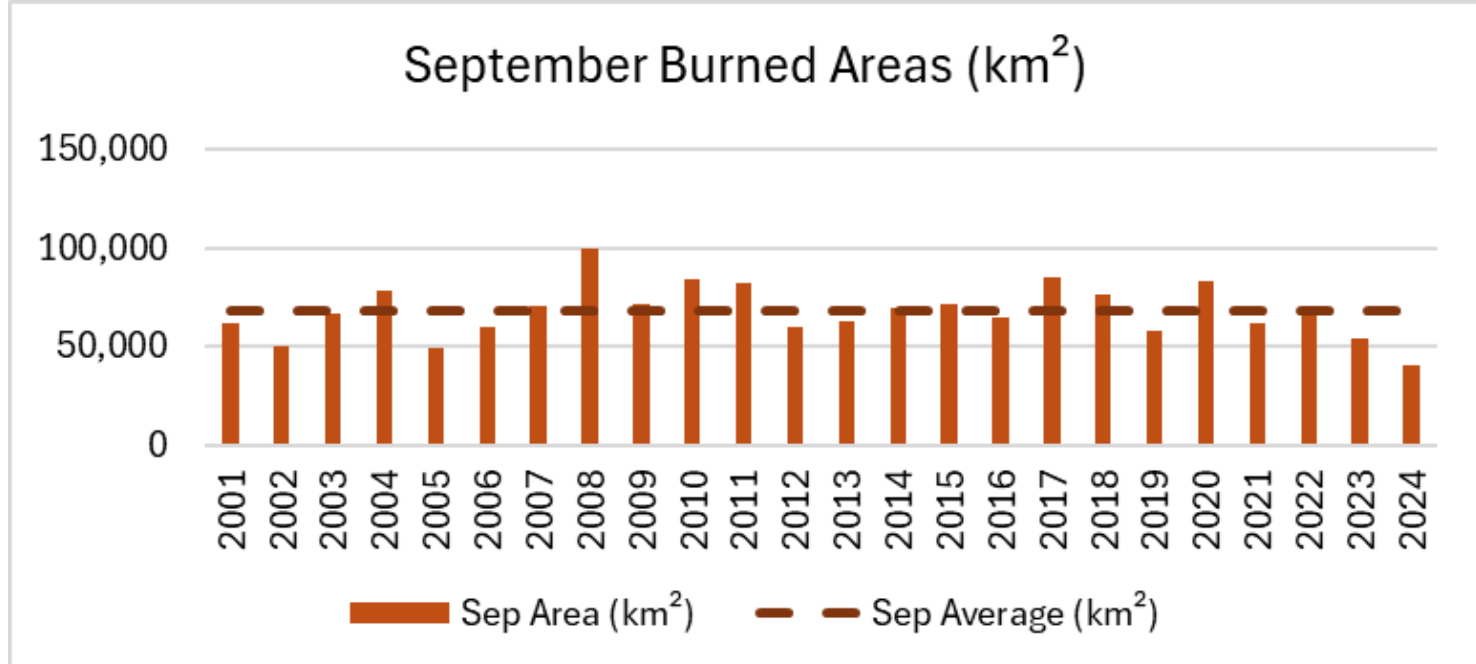
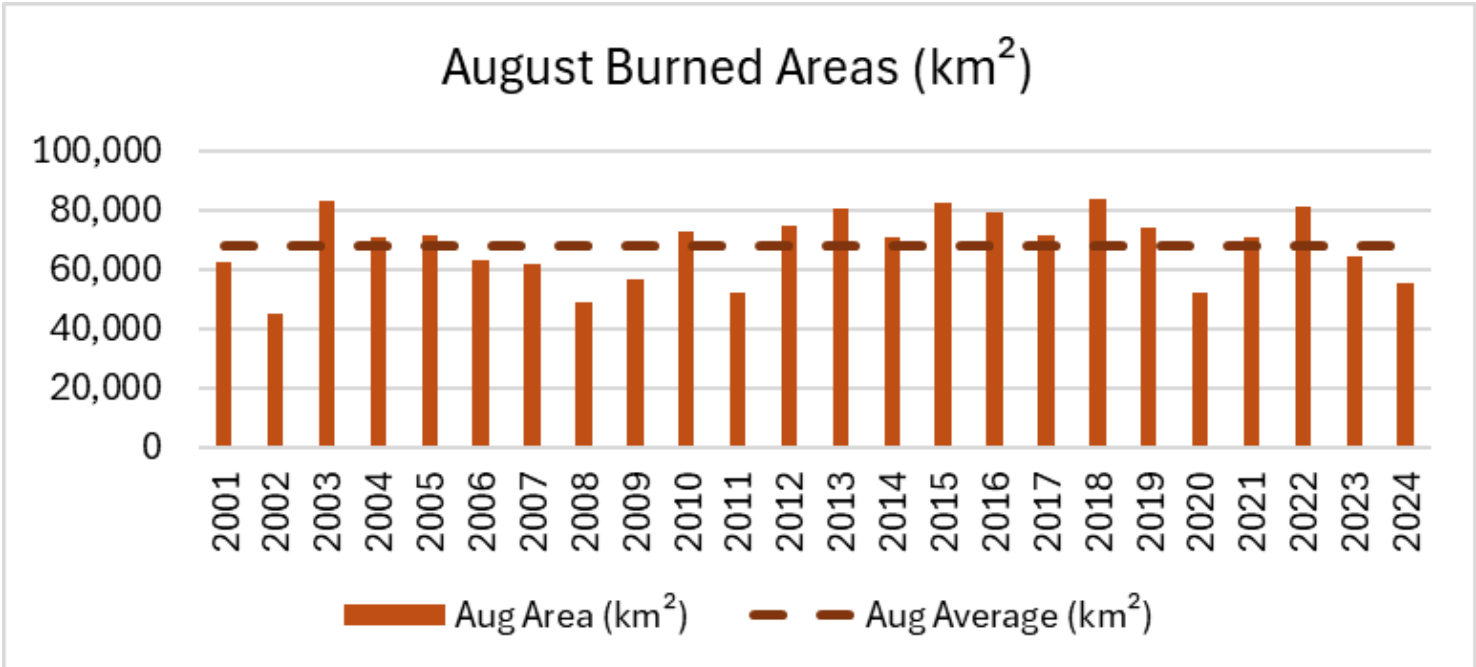
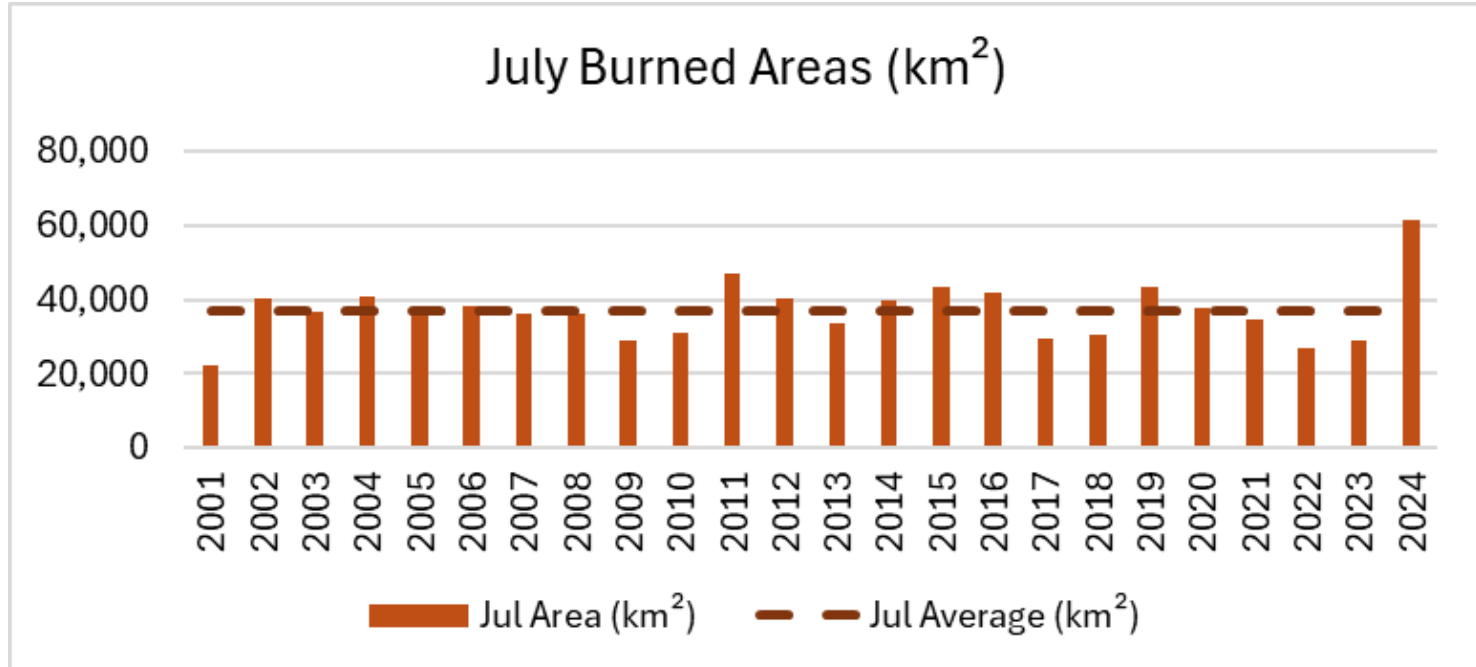
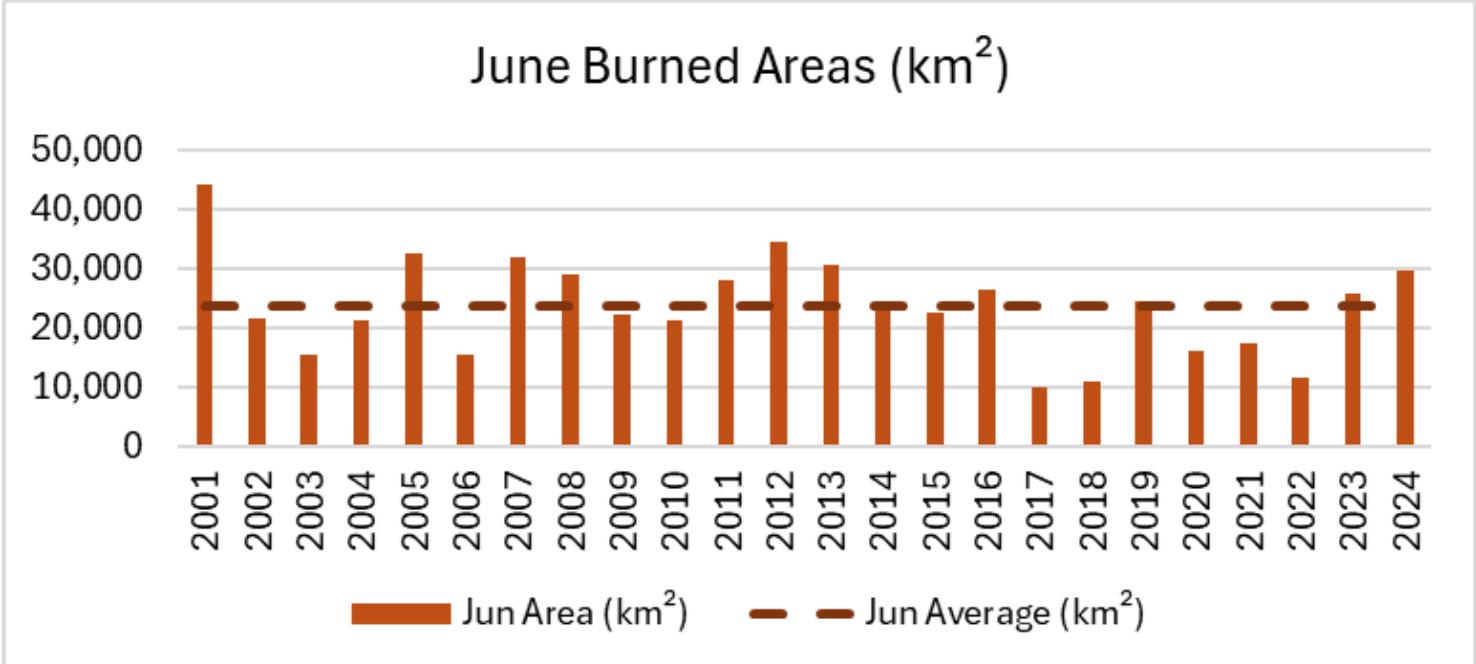
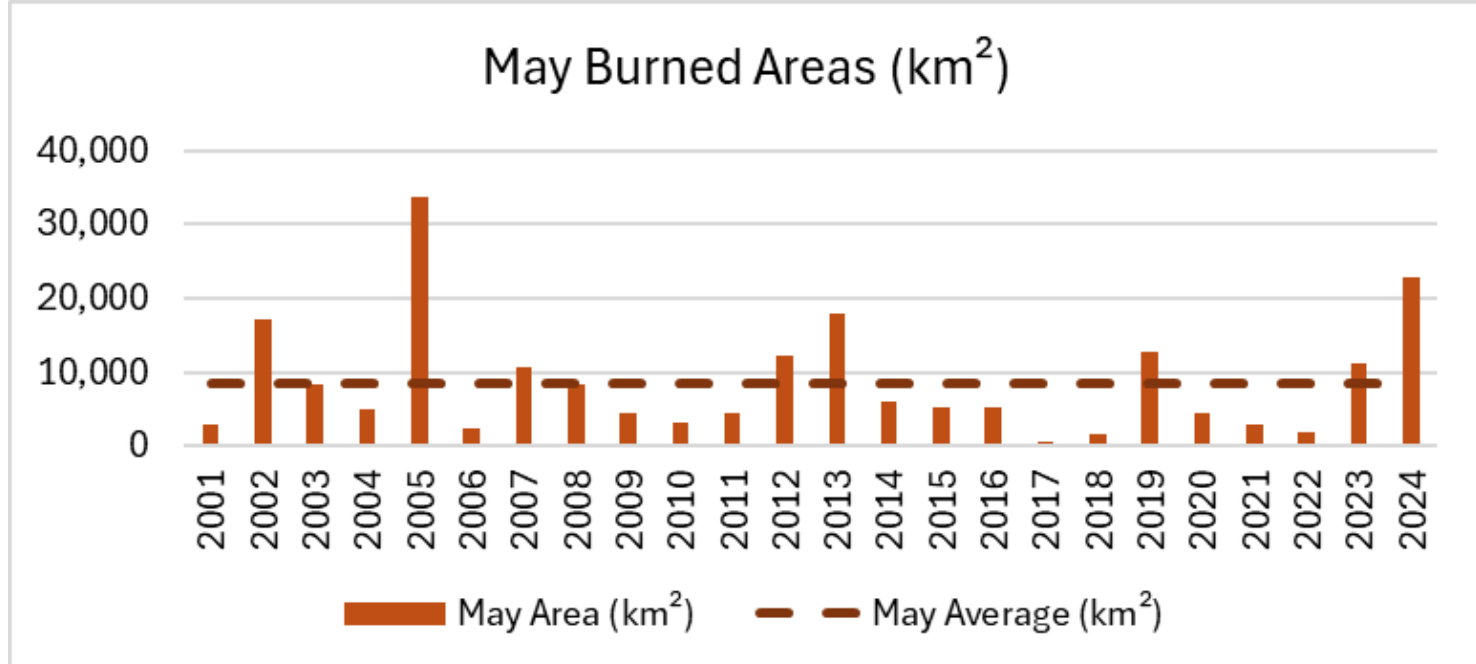
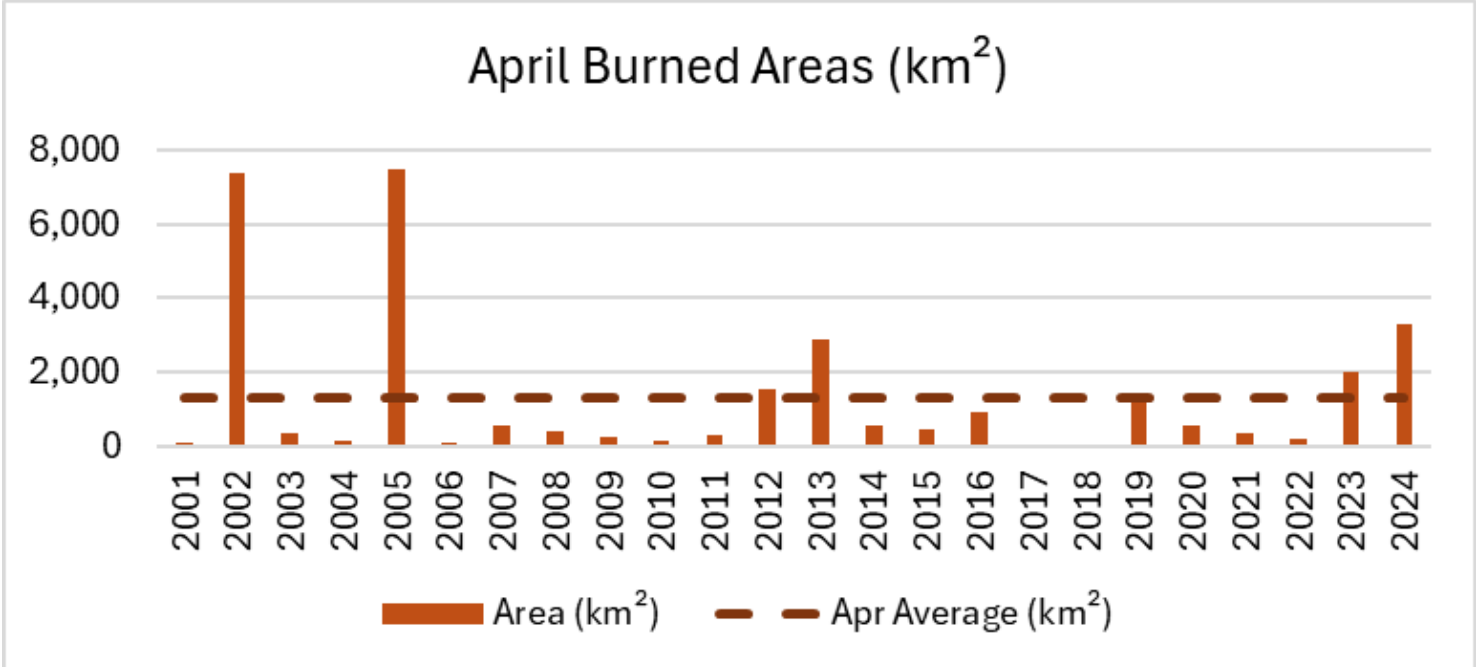
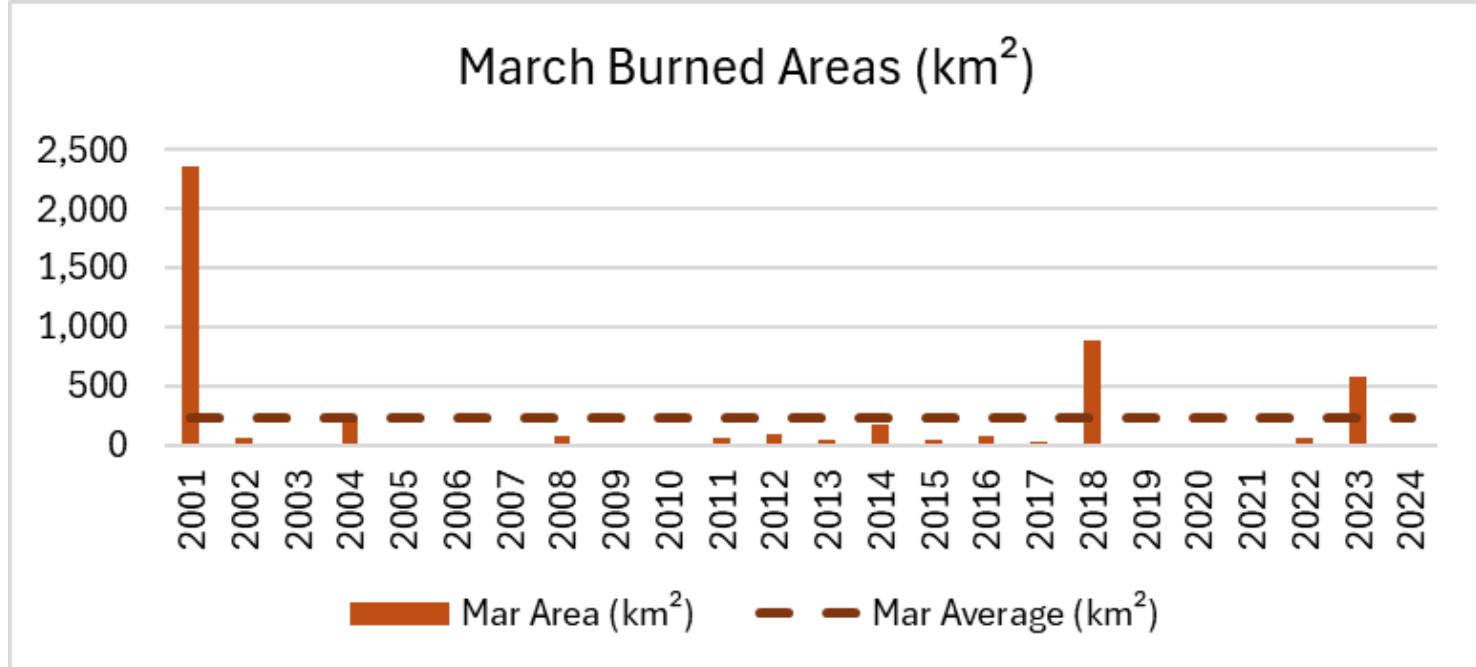
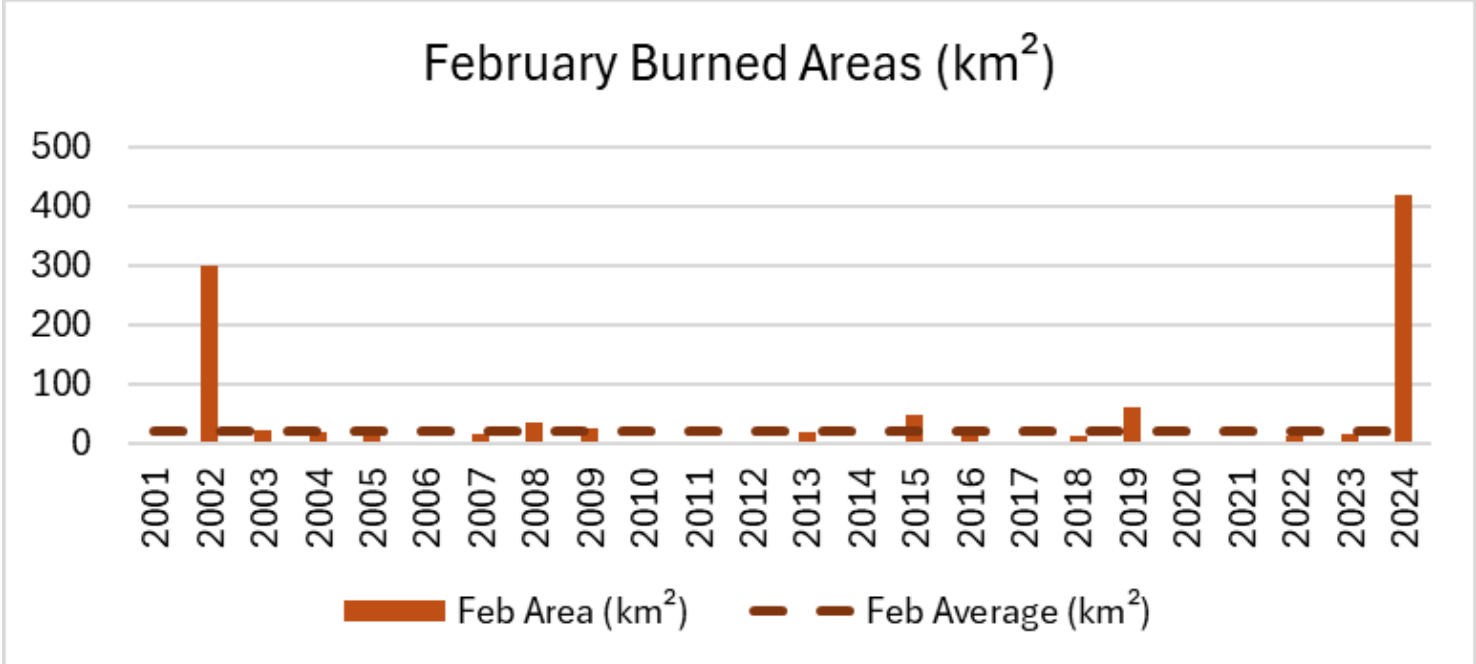
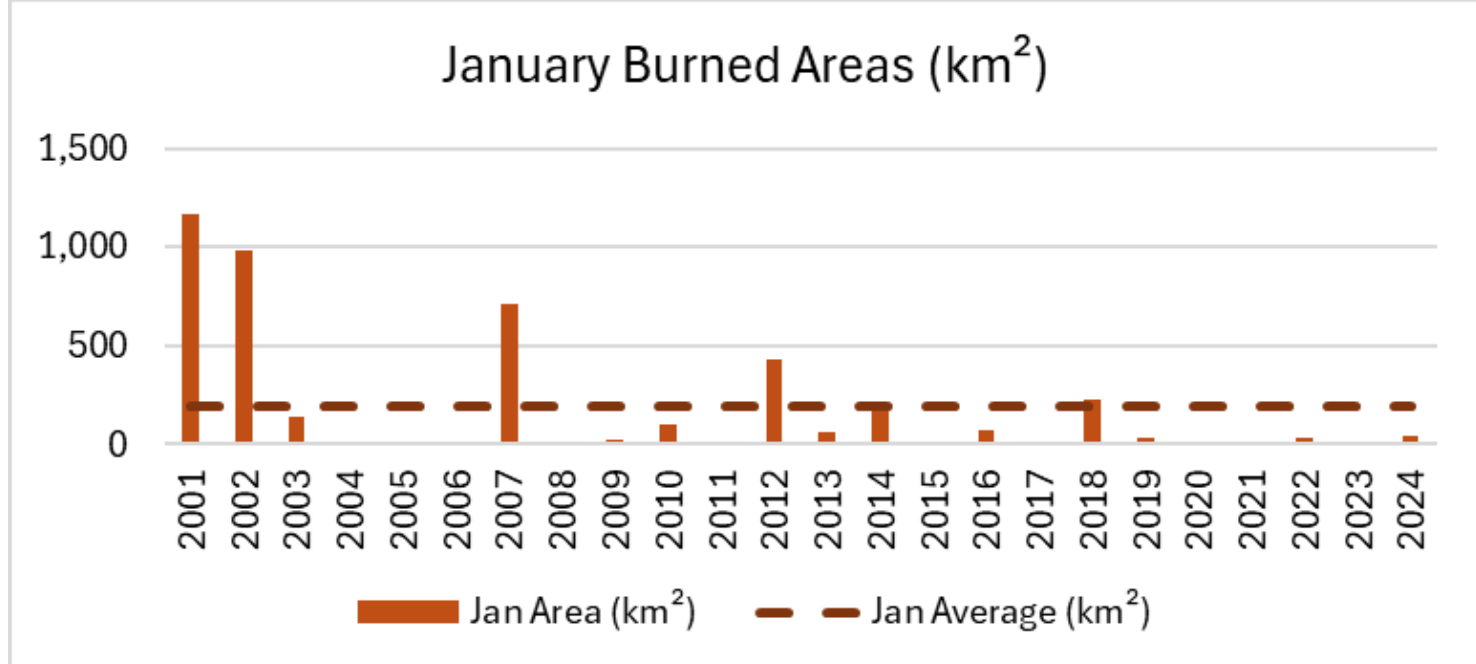
Annual fire season

The main months of the fire season in Zambia are from May to October. Fire season peaks in August and September with both months burning around 68 000 km² annually.

Zambia fire season occurs from May to October



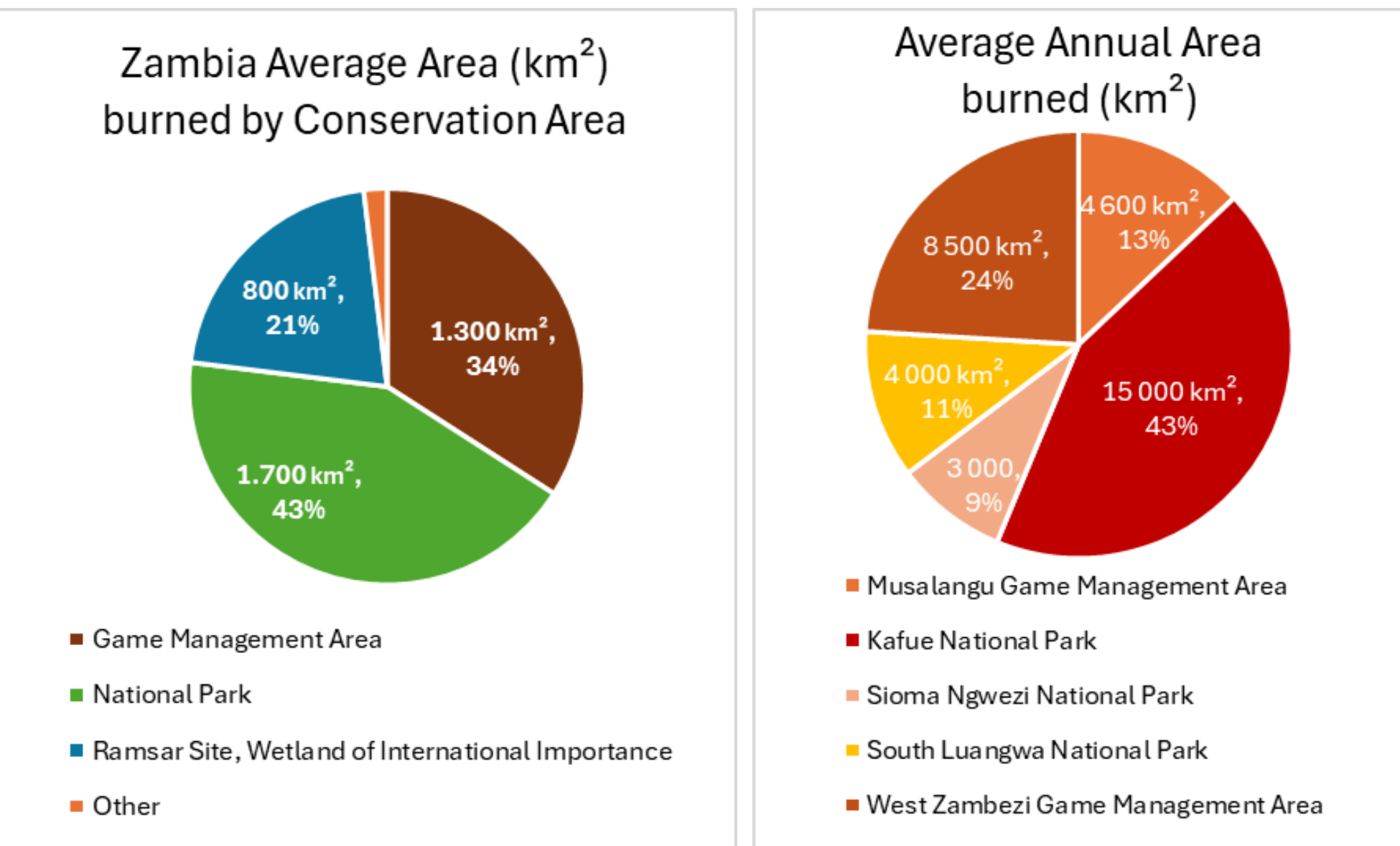
The biggest areas burned in a month were September 2008, with almost 100 000 km² burning, and September 2010, with almost 84 000 km² burning in a month .



Burning in Areas under Conservation Management

On average, National Parks are the areas under conservation management that burn the most, with around 1 700 km² burning annually.

Of the areas under conservation management, Kafue National Park burns the most, with annual average of around 15 000 km². Kafue is said to have the highest diversity of antelope in any African reserve and boasts of some 500 bird species.



The data indicates that August and September are the months with the highest likelihood of wildfires, while January experiences the lowest incidence.

