



# Fires from Space: Australia

Australian Fires -Data visualizations 🔥





# Introdations

*The goal of this project is to analyze and visualize the geographical distribution and temporal patterns of Australian fires using a dataset containing information on latitude, longitude, brightness, and acquisition date.*

## Exploratory Data Analysis (EDA):

**01**

**Seasonal Variation**

**02**

**Geographical Distribution**

**03**

**Time of Day**





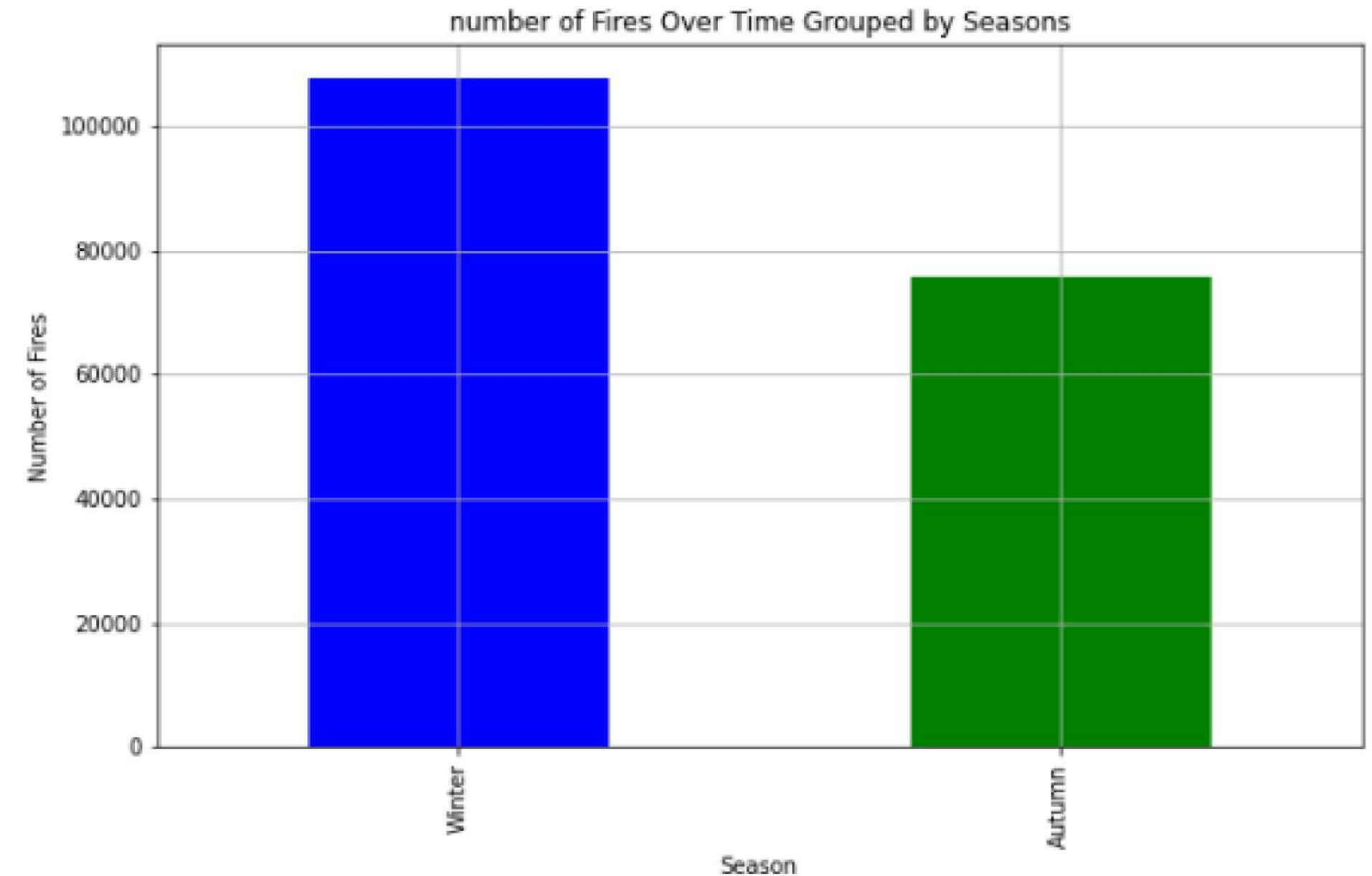
# Seasonal Variation

## Questions:

*How do environmental factors contribute to the occurrence and intensity of wildfires during the winter and autumn seasons?*

## why ?

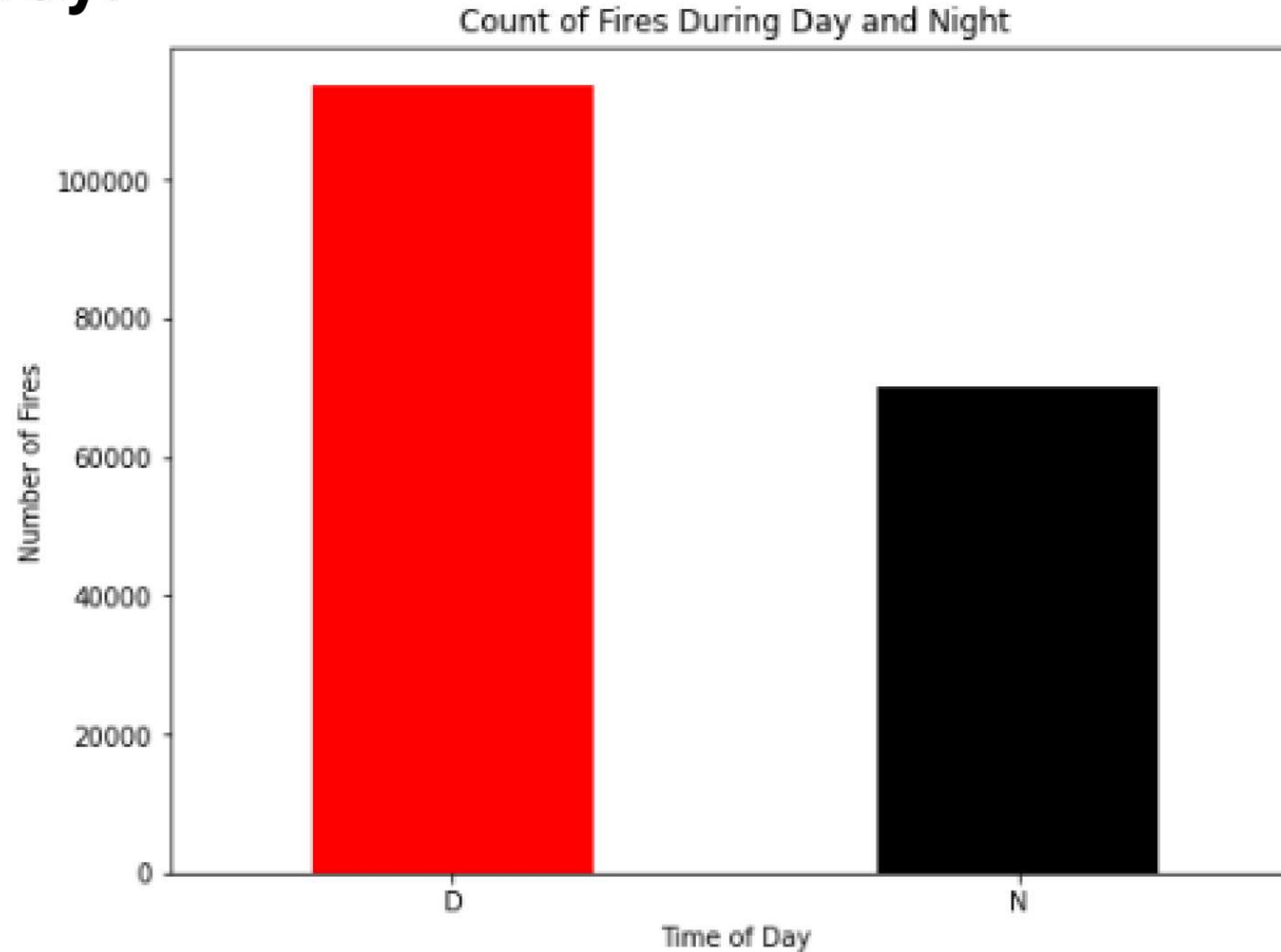
1. *Drier Conditions:*
2. *Increased Winds*
3. *Leaves on the Ground*
4. *Low Humidit*
5. *Human activity*
6. *Lightning*





# Fires with Time of Day.

- Are there any other factors that could be contributing to the higher percentage of fires occurring during the day?



## Result

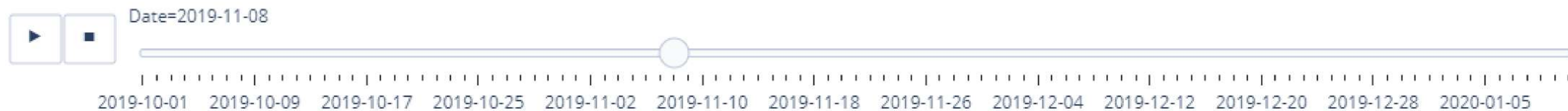
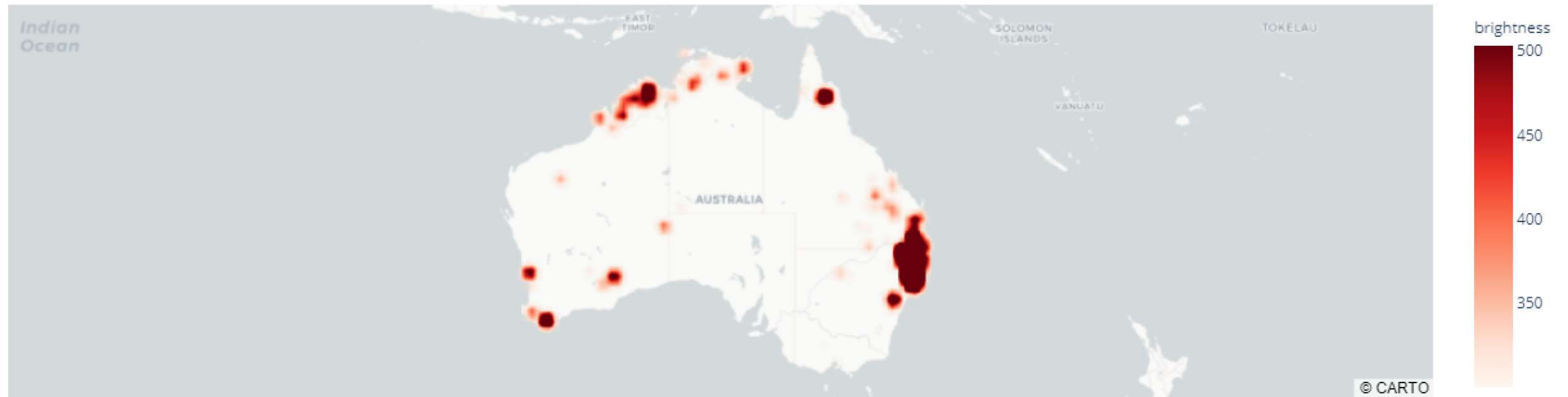
- The data shows that a higher percentage of fires occur during the day (61.80%) than at night (38.19%). This suggests that human activities may play a role in fire occurrences, as people are more likely to be using tools and equipment that could spark fires during the day.



# Geographical Distribution:

- What are the regions with the highest and lowest frequency of fires?
- How has the frequency of fires changed in these regions over time?
- Are there any common factors that contribute to the high frequency of fires in these regions?

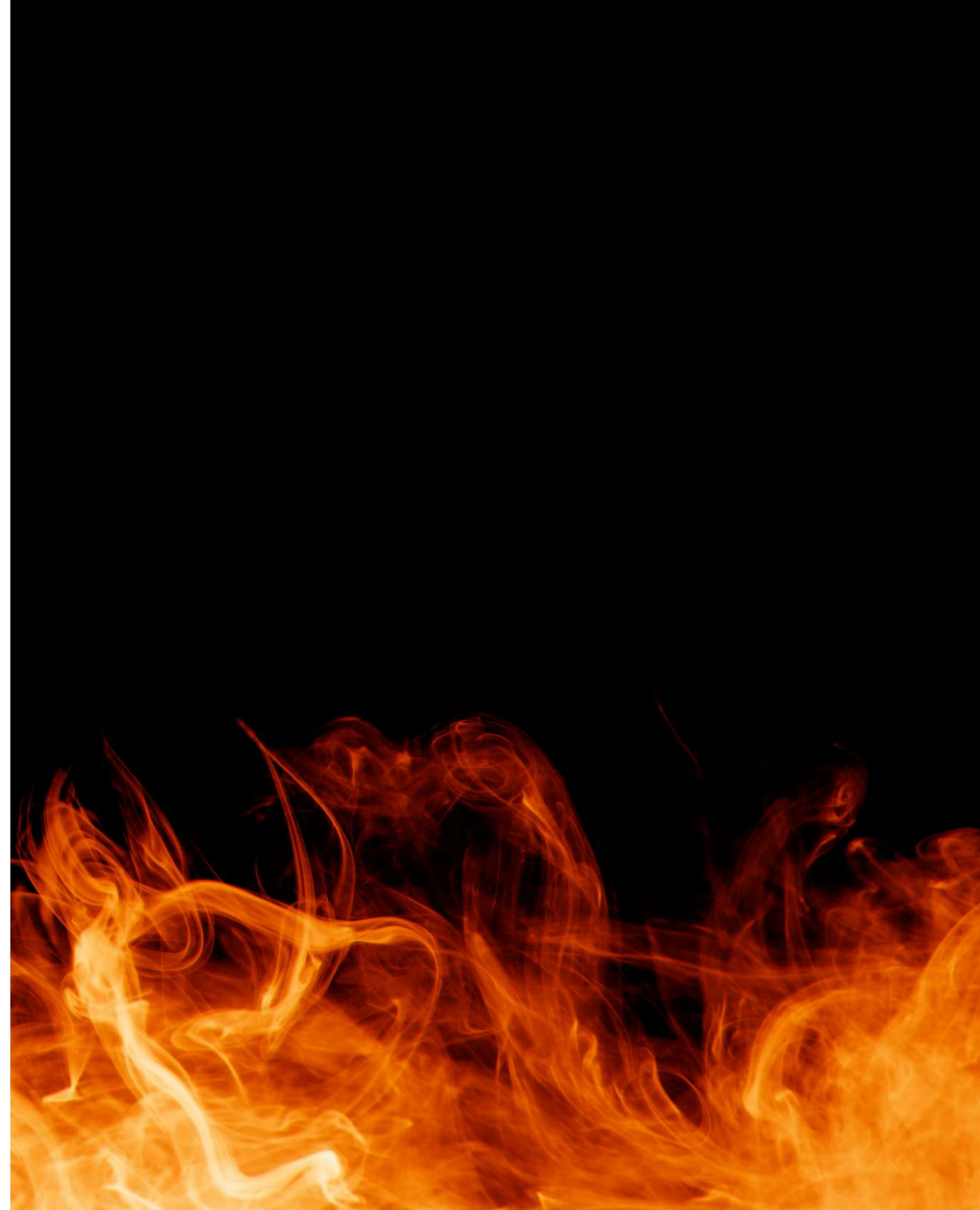
Australian Fires: From 2019/10/01 to 2020/01/11





# Result

- Regions with a higher frequency of wildfires in Australia: Southeast Australia, Northeast Australia, and Southwest Australia.
- Regions with a lower frequency of wildfires in Australia: Northern Territory and Central Australia.
- Factors that drive the geographical distribution of wildfires in Australia: Climate, vegetation, land use, and topography.
- Types of vegetation or land use patterns that increase wildfire risk: Eucalypt forests, dry grasslands and savannas, cleared or fragmented forests, and areas with a history of fire.







# Thank You

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