

# Fogo como vetor de degradação das florestas da Amazônia

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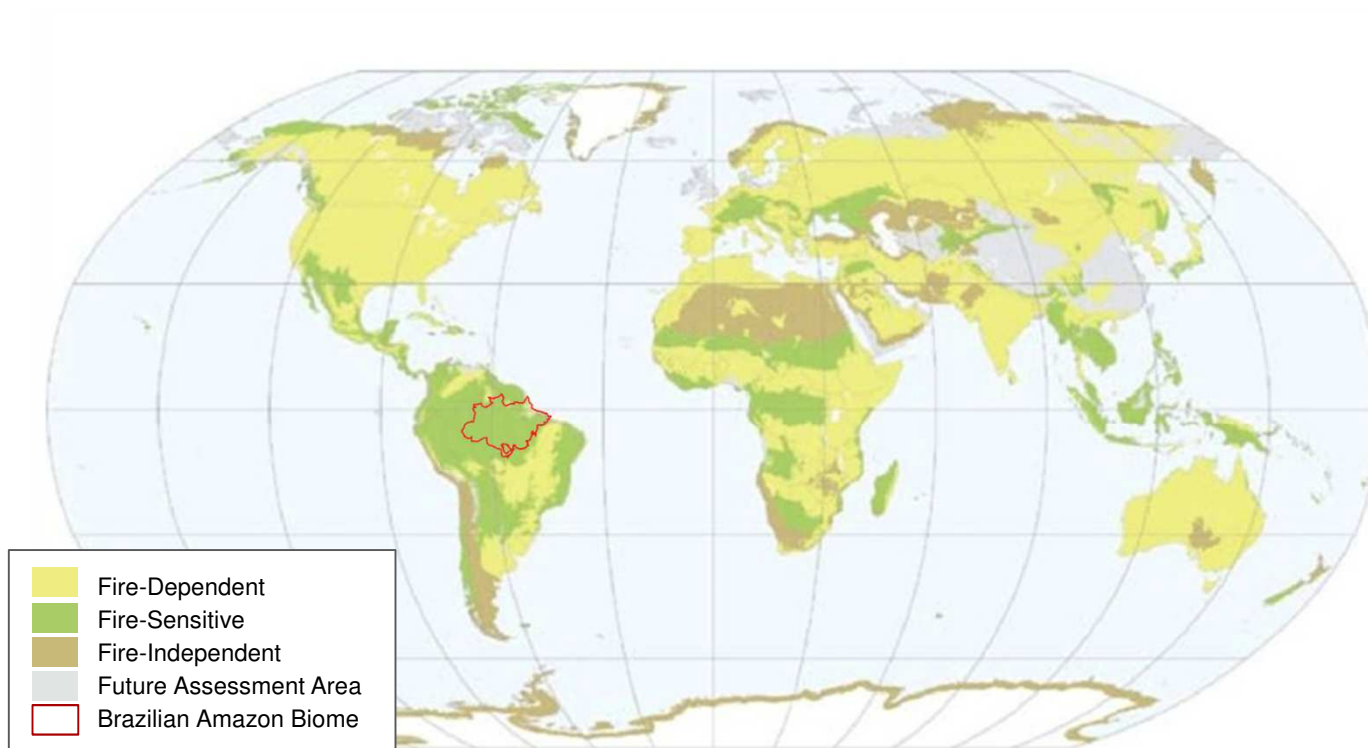


Julho 2024



Photo: Paulo Brando

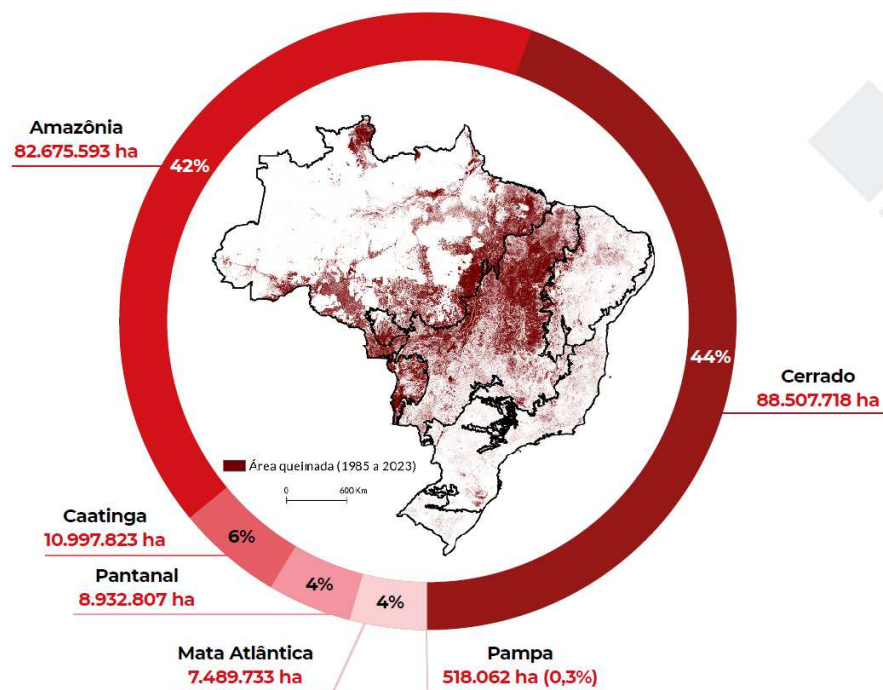
## Distribuição dos ecossistemas sensíveis, dependentes e independentes ao fogo



Global distribution of fire-dependent, fire-sensitive, and fire-independent ecosystems (Shlisky and others 2007)



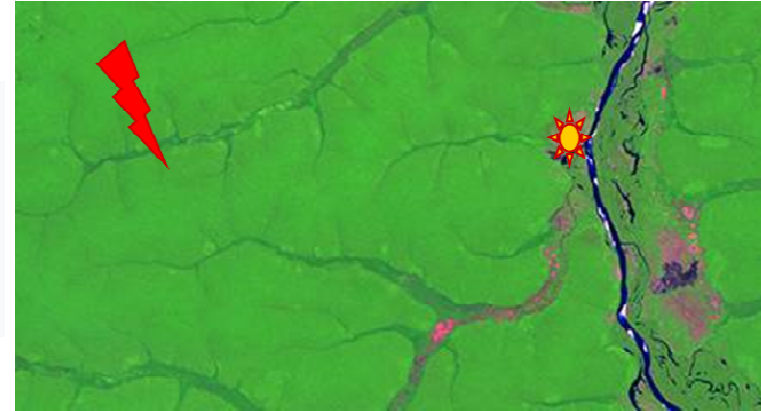
## Amazônia é o segundo bioma que mais queima no Brasil



## No passado

Os incêndios florestais eram raros e causados principalmente por secas extremas

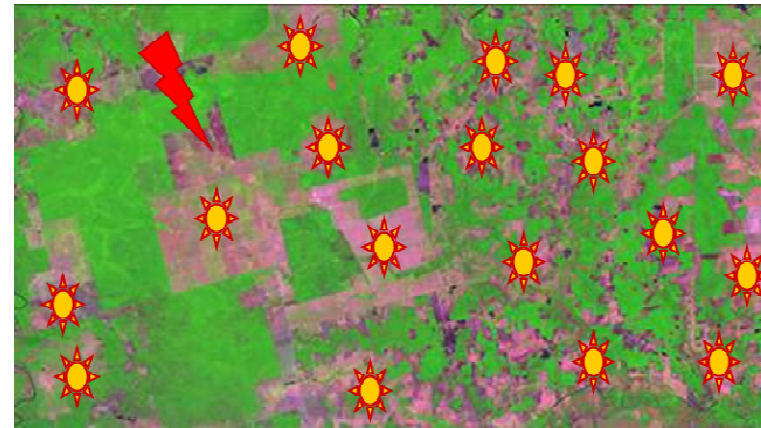
As fontes de ignição eram em sua maioria naturais e a floresta era mais resistente ao fogo.



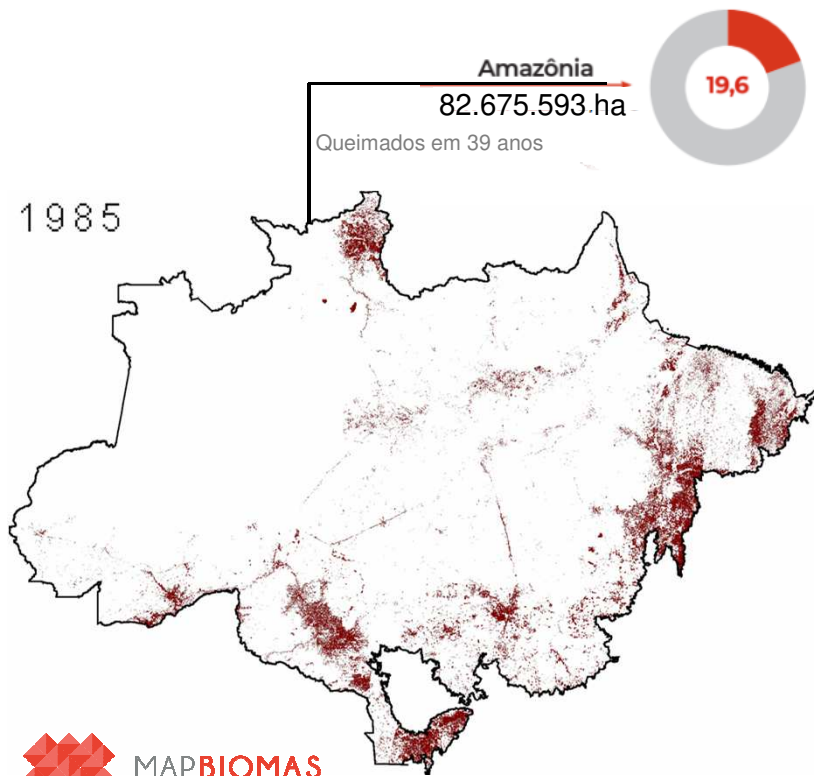
## Hoje

Os incêndios florestais são mais frequentes, extensos e impulsionados mais pela estrutura da paisagem do que por fenômenos climáticos.

A maioria das fontes de ignição de incêndios florestais é de origem humana



# Queimadas e Incêndios na Amazônia



Alencar et al. 2022. Disponível em [www.mapbiomas.org.br](http://www.mapbiomas.org.br)

Área média queimada anualmente:  
**71.147** km<sup>2</sup>/ano  
1,69% do bioma



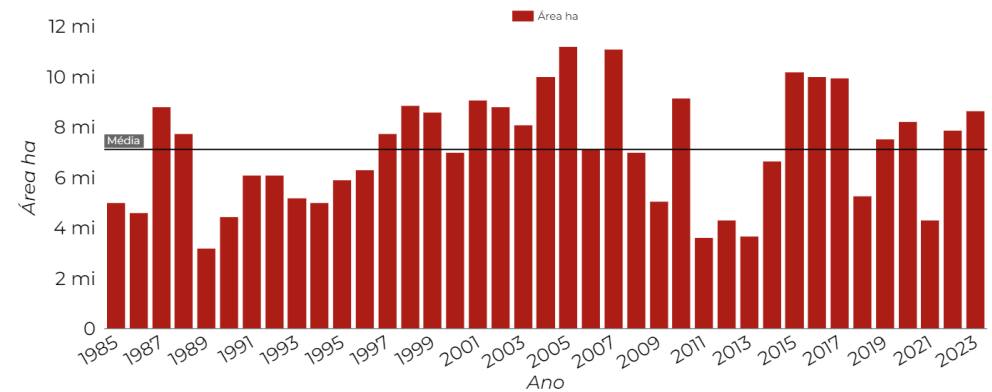
Vegetação Nativa

**45%** da área queimada  
19,6% do floresta



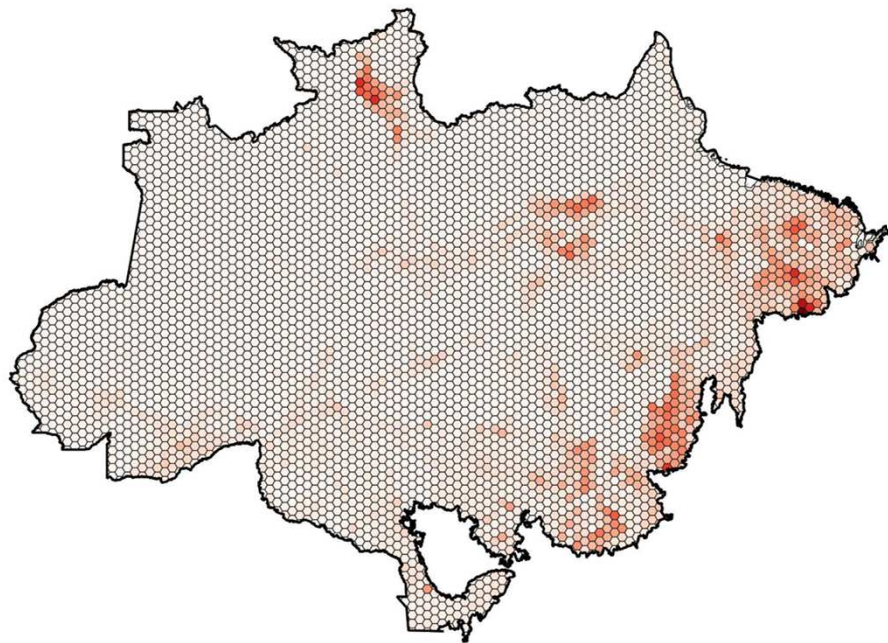
Agropecuária

**55%** da área queimada  
54% pastagem

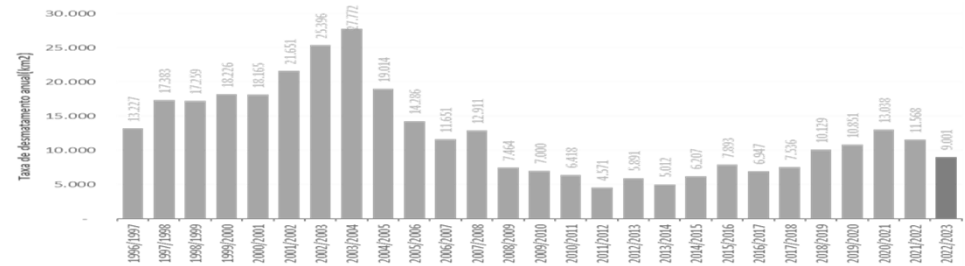




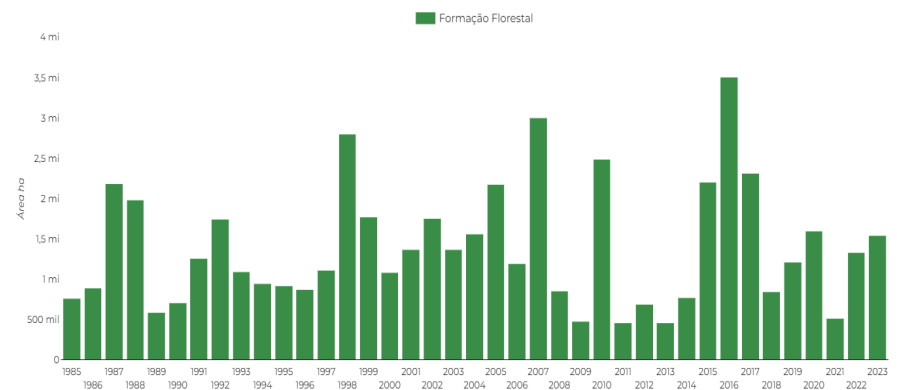
# Área afetada por incêndios na Amazônia



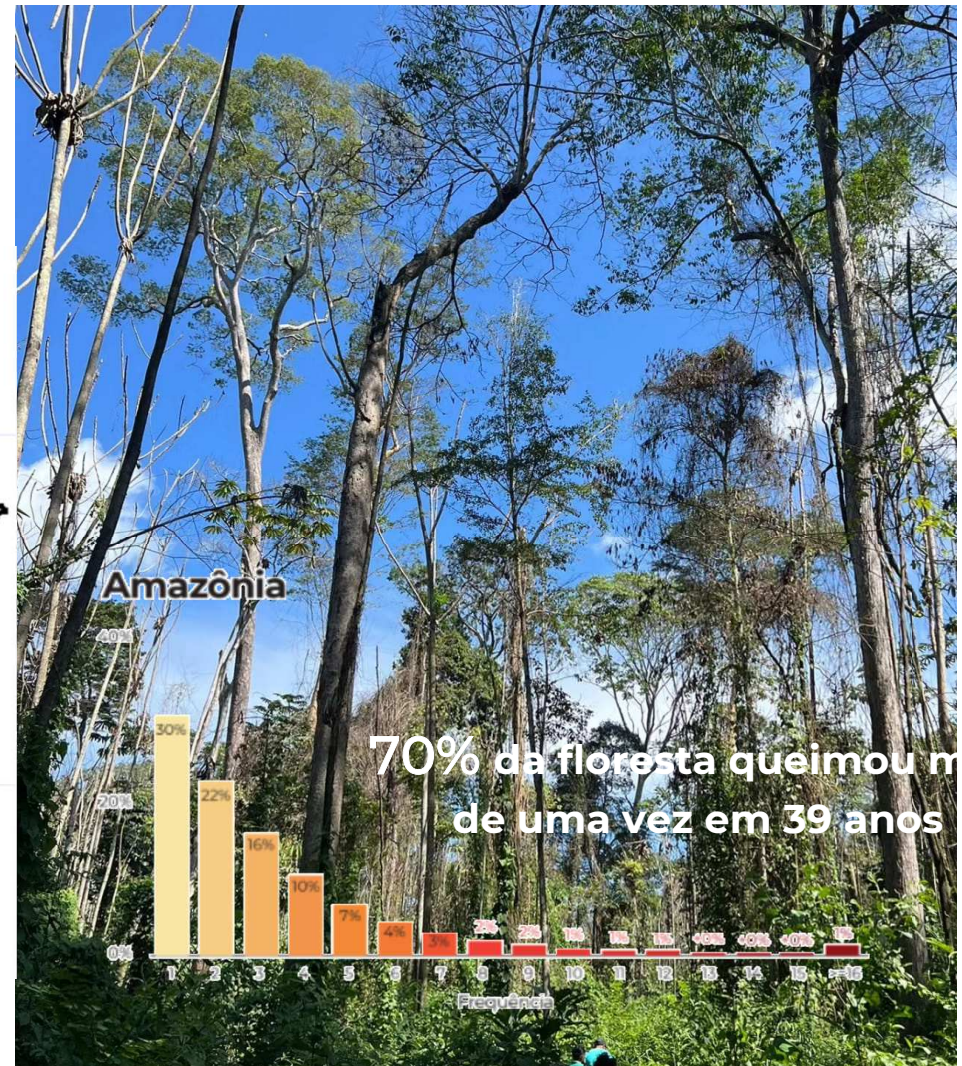
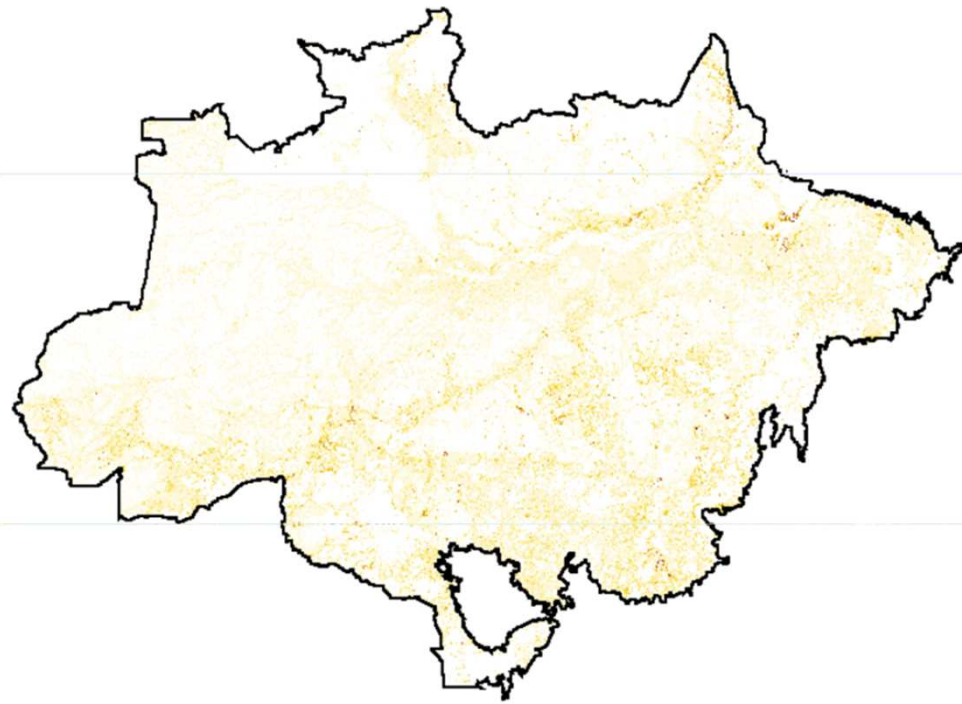
## Área desmatada anual



## Área média queimada: 13.932 km<sup>2</sup>/ano

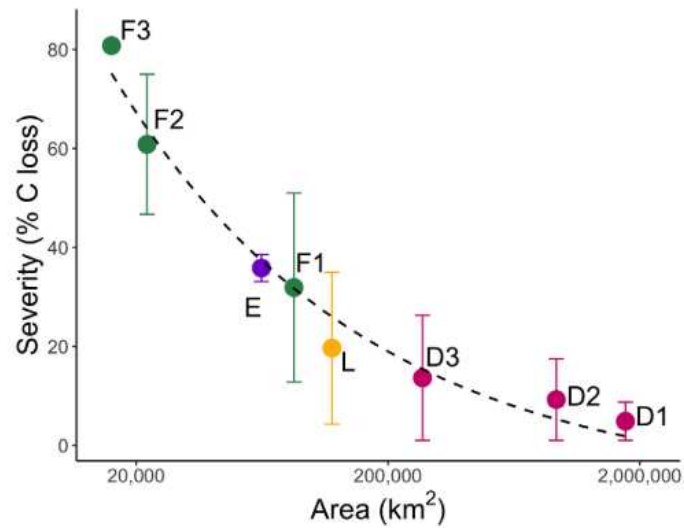


# Quão frequente foram os incêndios florestais?

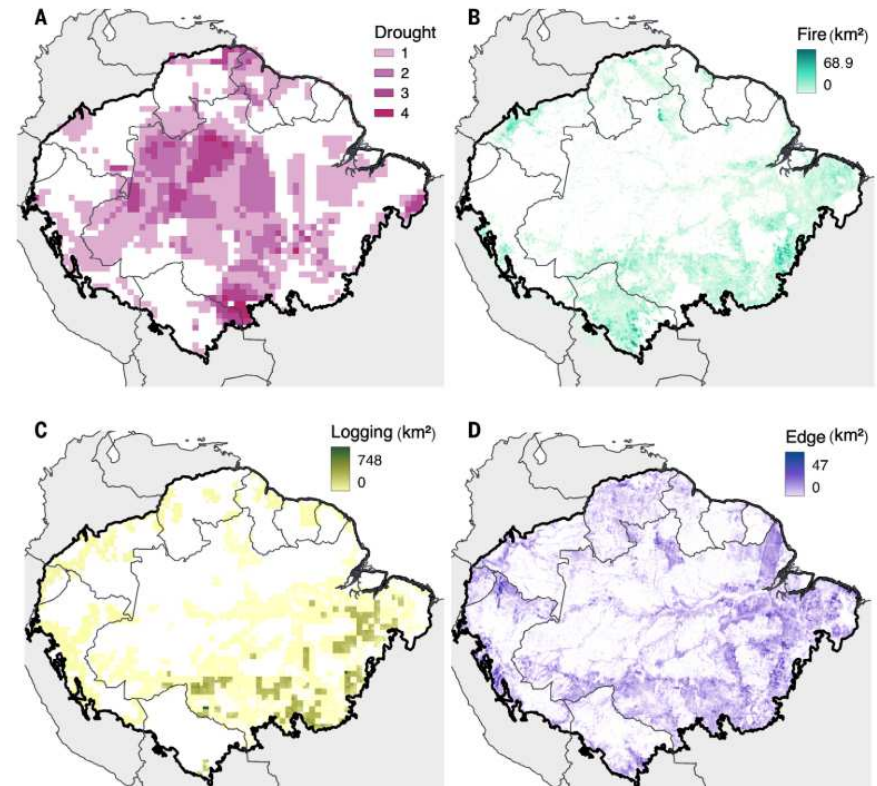




# O papel do fogo na degradação florestal



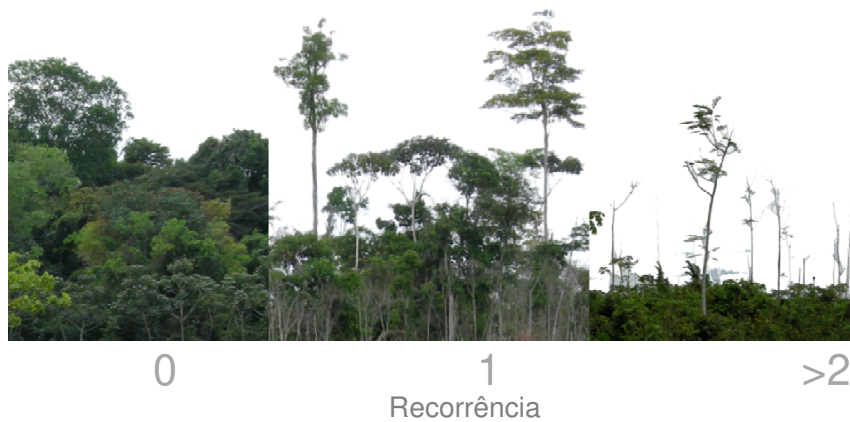
**Fig. 3. The relationship between the area affected between 2001 and 2018 and disturbance severity (carbon loss).** D, extreme drought; E, edge effects; F, forest fire; L, timber extraction (logging). Numbers denote single events (1) or repeated fires or droughts (2 or 3). Area is shown on a  $\log_{10}$  scale. See supplementary materials for analysis methods.



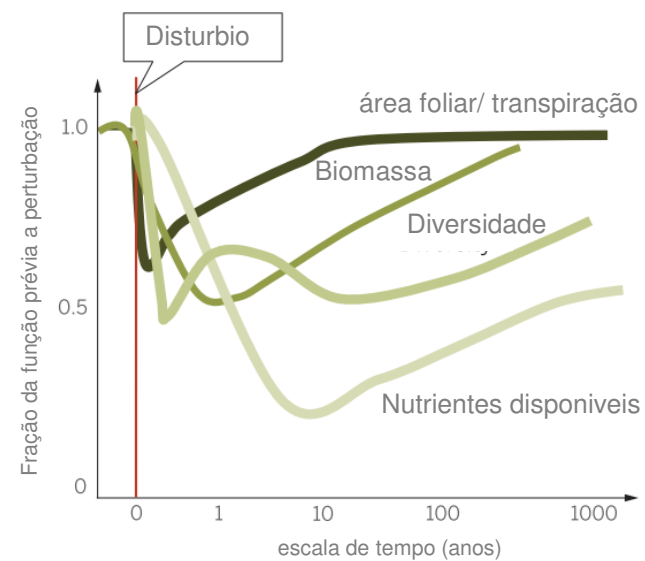


# Impacto do fogo na floresta

O efeito da recorrência na mudança do regime do fogo e na degradação

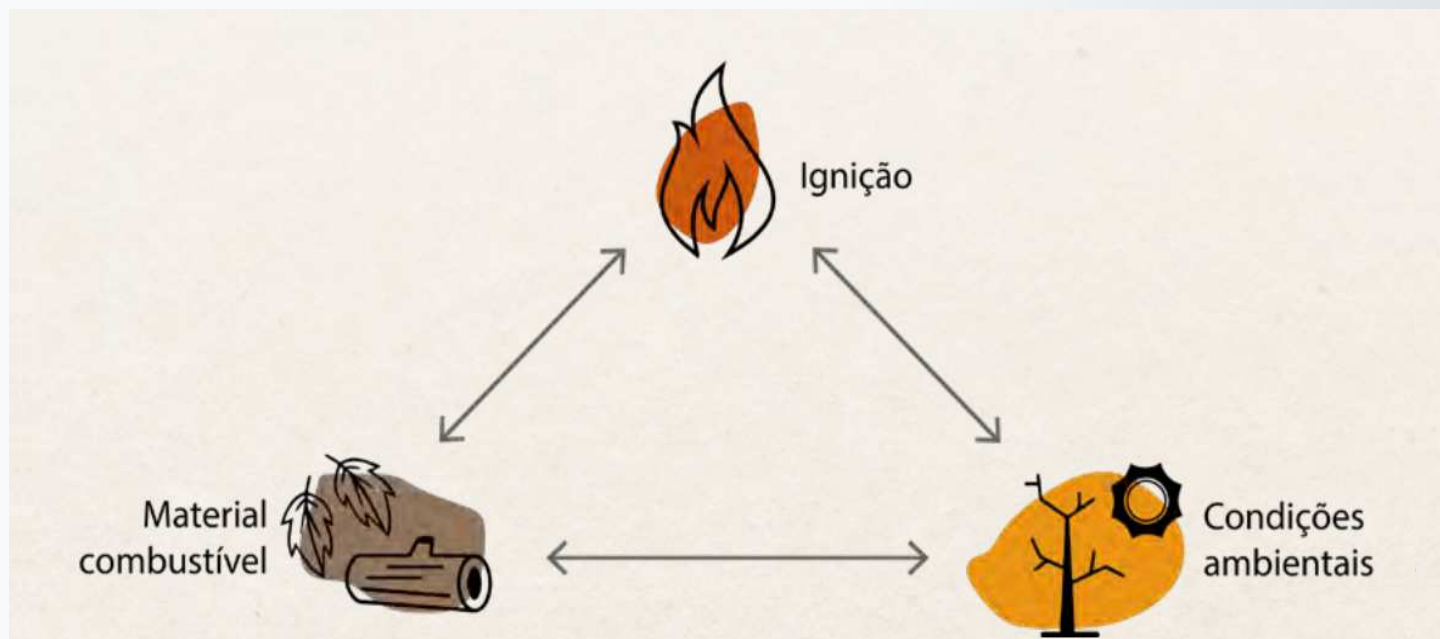


Fonte: Alencar et al. 2015



Fonte: Trumbore, Brando et al. 2019

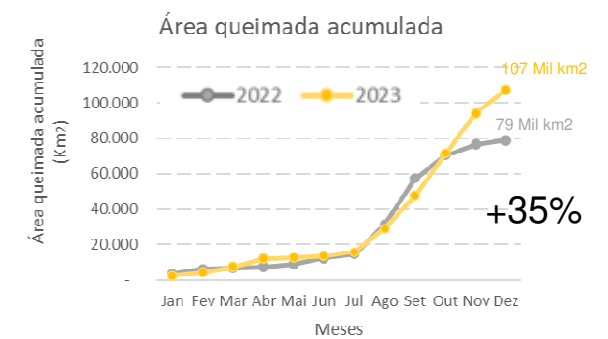
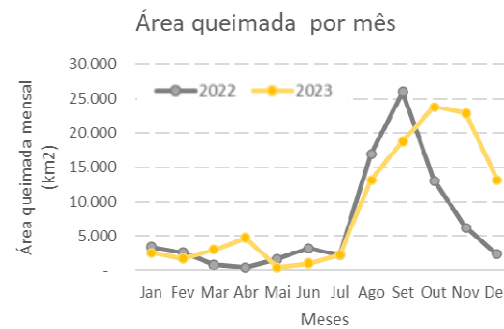
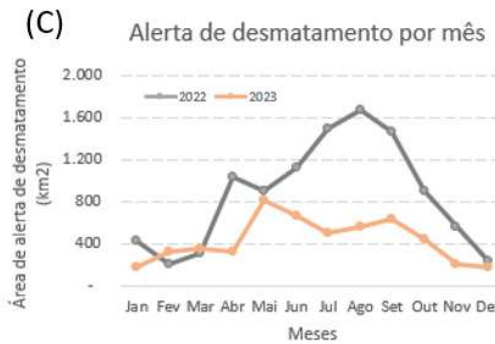
# A equação do fogo





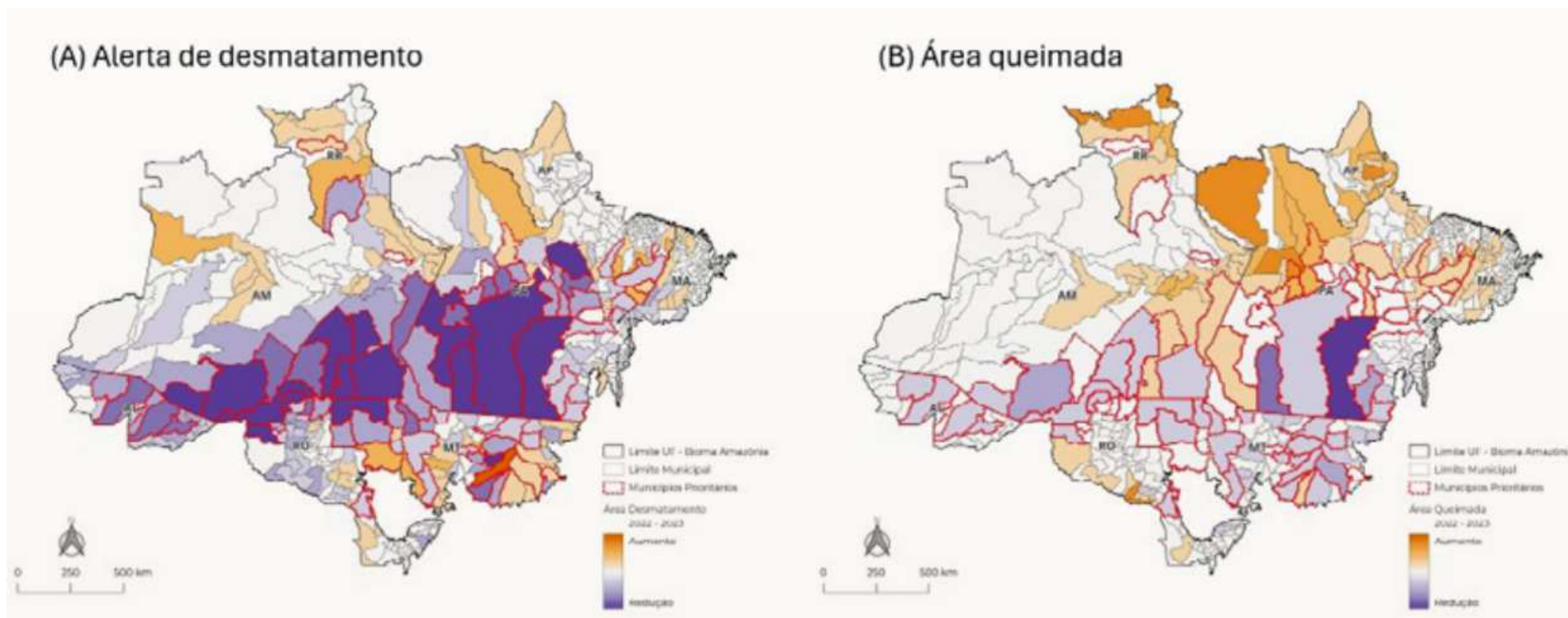


# A importância de reduzir o desmatamento



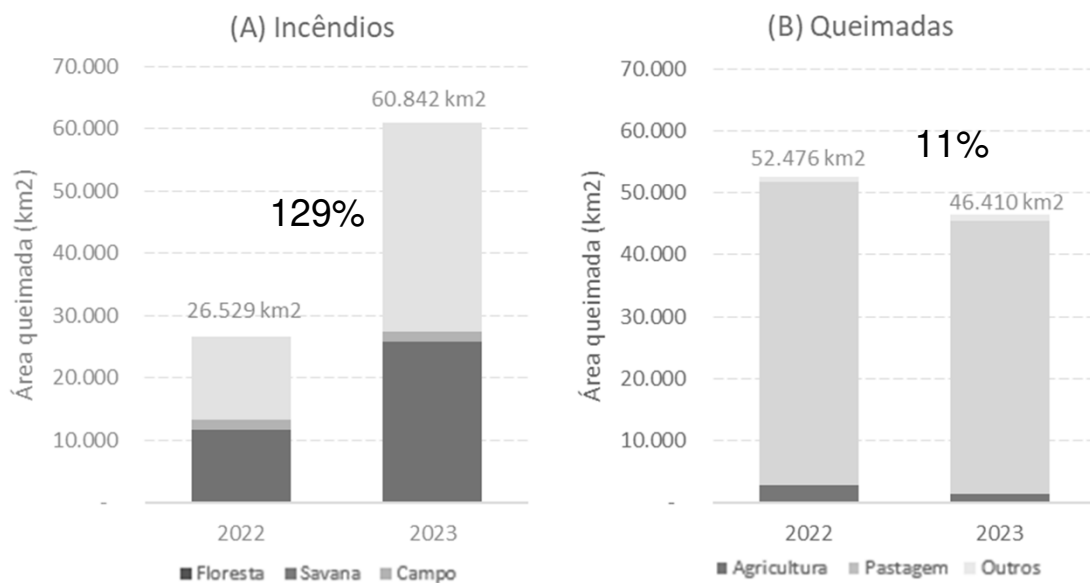
Fonte: Alencar et al. 2024, com base nos dados do DETER e Monitor de Fogo do Mapbiomas

## Queimadas e incêndios em 2022 e 2023





## Queimadas e incêndios em 2022 e 2023



Fonte: Alencar et al. 2024, Monitor de Fogo do Mapbiomas



# Emissões de GEE por Incêndios Florestais

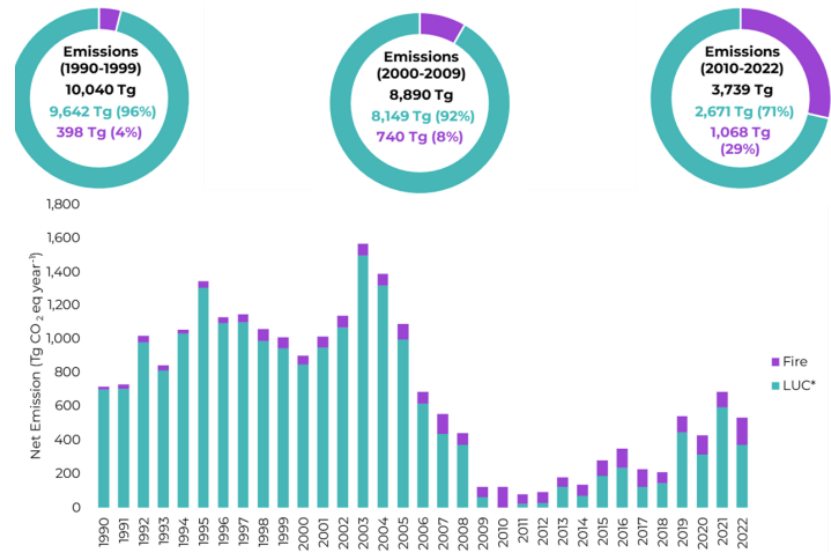
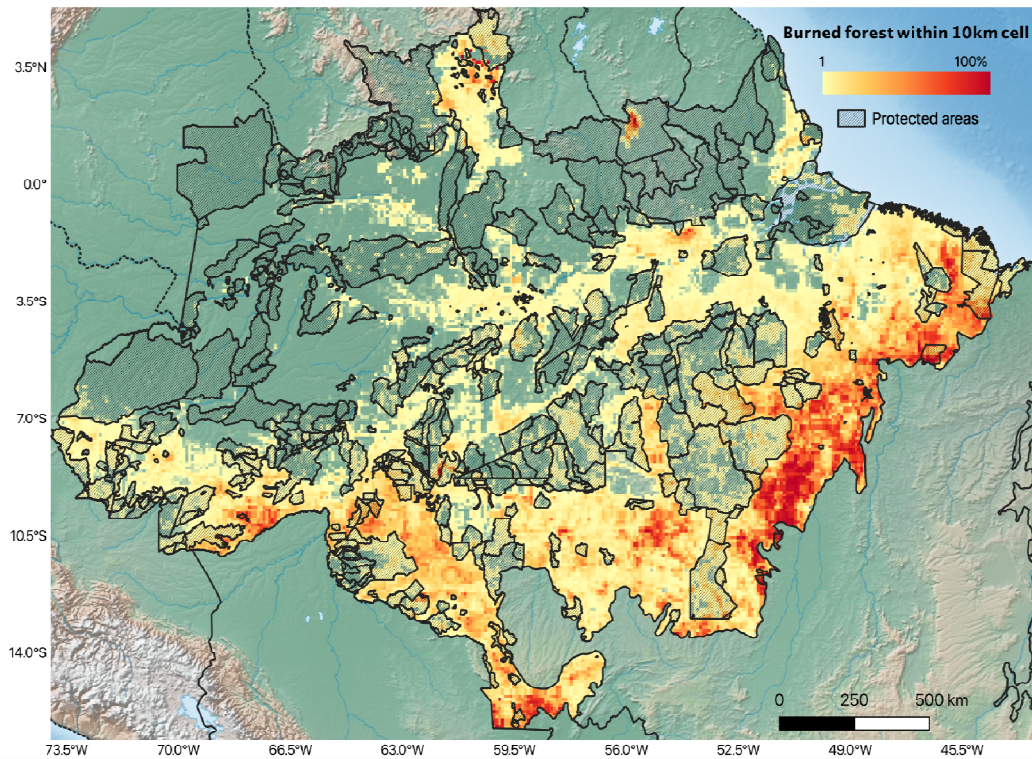


Figure 1 - Annual equivalent carbon dioxide (CO<sub>2</sub> eq/GWP-AR5) emissions from 1990 to 2022 in the Brazilian Amazon. Net emissions from \*LUC - Land Use Changes and Fires Unrelated to Deforestation. Source: Greenhouse Gas Emissions and Removals Estimation System - SEEG (<https://seeg.eco.br>).





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**Obrigada!**

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