

Trends in deliberate vegetation fires in Australia: Implications for recording and preventing bushfires

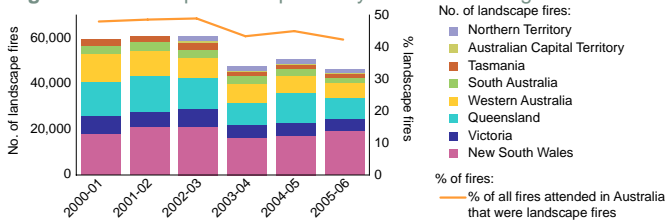
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How many bushfires are deliberate?

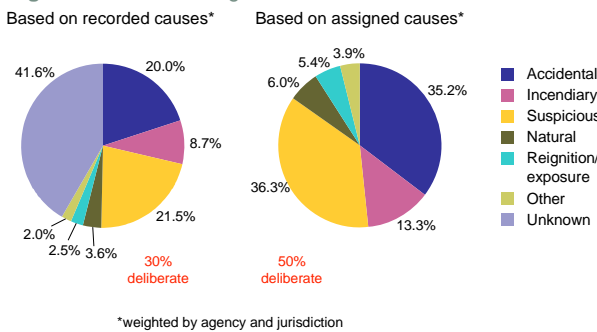
Fire services attend 50,000 to 60,000 vegetation fires every year, with vegetation fires accounting for between 30 to 80 percent of all fire incidents in individual states and territories (Figure 1). Between one-third to half of all vegetation fires in Australia are likely to have been deliberately lit (Figure 2).

Figure 1: Landscape fires reported by Australian fire agencies



Source: Australian Productivity Commission

Figure 2: Causes of vegetation fire in Australia.



*weighted by agency and jurisdiction

Where do deliberate bushfires occur?

One to two-thirds of all vegetation fires occur within the region incorporating the state or territory capital, and higher frequencies are associated with major regional centres, and other areas of high population density.

People are clearly the principal cause of vegetation fires in Australia. Population is not the sole contributor to increased fire frequency, with other environmental, demographic and social factors playing their part.

Figure 4: Relationship between number of deliberate and total fires.

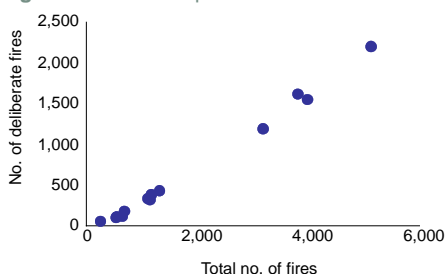
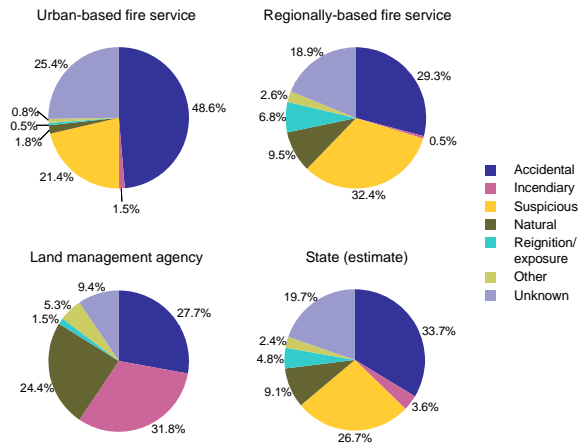


Figure 3: Variations in attribution for fire agencies in one state



What do we know about deliberate bushfires?

The Australasian Incident Reporting System (AIRS) has enabled a unified means of recording and reporting fire data, however fundamental difficulties remain in the collation of fire data.

Large differences in the rates of incendiary and suspicious lightings exist across fire agencies and jurisdictions (Figure 4). While some differences may be real and reflect genuine differences in the causes of vegetation fire, others appear to be artificial, resulting from differences in the way fires are classified.

What can we do about deliberate bushfires?

A clear relationship exists between high numbers of fires and a high incidence of deliberate fires at local and regional levels (Figure 4). Total fires numbers (irrespective of cause) indicate which areas should be targeted.

Examination of causes at a local level will guide the most appropriate fire reduction strategies—be that specific arson reduction programs, targeting discarded cigarettes, illegal rural burns, or addressing issues pertaining to general antisocial behaviour.

By targeting areas with particularly high concentrations of fires, it is possible to radically reduce the total number of vegetation fires. Reducing the number of deliberate vegetation fires will free up limited suppression resources, particular in times of extreme bushfire weather.

Acknowledgements:

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