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BushFIRE Arson Bulletin

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Cost of bushfires

The cost to Australia from bushfires has yet to be comprehensively researched, but some indicators of the general magnitude are outlined below. It is impossible to apportion how much of the cost of bushfires is due to arson because of the complex and imperfectly known ignition sources of many fires.

Loss of human life and serious injury

Loss of life and serious injury. It has been calculated that 552 people have perished in bushfires in the past century (Haynes et al 2008) making it one of the leading causes of deaths from disasters. More people are injured from bushfires than all other natural disasters combined (AIC 2004).

Economic costs. Bushfires are somewhat unusual among disasters by having an episodic cost component as well as a continuous financial impact. In an 'average' year, insurable losses will be approximately $80–100m. Episodic losses can be significant. For example, the Black Friday fire of 1939 is estimated to have cost $750m, the 1983 Ash Wednesday fires $400m (AIC 2004) and insured losses from the 2009 Victorian fires now exceed a billion dollars. (National Insurance Council 2009).

Losses of ecosystem services. While bushfires cause the loss of a number of ecosystem services, two are profound and immediate. First, the carbon exchange between the atmosphere and biosphere (forests, grasslands and soils) is 10 times that of all fossil fuel burning. Bushfires can cause significant disturbances to this cycle and although they are currently not part of the national greenhouse accounts, they form an important part of Australia's emissions. A major bushfire event such as the 2003 fires in southeastern Australia can spike national emissions by 180 Mt CO2-e (AGO 2005). This represents about a 30 percent increase for that year. Most of this carbon will eventually be recaptured, but the process could take a fire-free century and it is difficult to see this happening without a significant change in current fire regimes. The loss of water runoff after fires as fire grounds revegetate has been variously estimated at between 20–30 percent over 30 to 50 years (Ker 2009; Lane et al 2007). With more than three million hectares of catchments burnt in southeast Australia since 2003, bushfires are having a profound, but not yet fully quantifiable, effect on Australian hydrology.

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