

## **The Role of Fire in Australian Forests and Woodlands**

### **IFA Forestry Policy Statement 3.1**

The Institute of Foresters of Australia (IFA) advocates the need for better appreciation of the important and complex role of fire in the evolution and maintenance of Australian ecosystems. This includes the need for the collection and analysis of scientific research into fire use and the distribution of information to policy makers, land managers and the community.

#### **The Issue**

Fire is critical to the maintenance of biodiversity and ecological processes, as well as contributing to the distinctive nature of Australian forests and woodlands. At the same time, uncontrolled fires pose a serious threat to human life, property, community assets and forest values such as water, wood and biodiversity. In most Australian forests complete fire exclusion is neither feasible nor ecologically desirable. Forest managers must seek to understand the role of fire and use it to support objectives for land management.

#### **Background**

Fire is one of the most important factors in the ecology of Australian forests and woodlands. Fire regimes are influenced by environmental factors including climate and weather, topography, soils and the characteristics of the vegetation. In many forest landscapes, fire regimes have changed dramatically in the last two centuries as a result of agriculture and urban development, changes in land management practices, legislative restriction of the lighting of fires and organised fire control.

Excluding fire from naturally fire-prone forests and woodlands can result in changes to the conditions of ecosystems. Altered fire regimes may be linked to changes in ecosystem health, regeneration patterns, weed invasion and the occurrence of pests and diseases. Fire exclusion is also very likely to increase the risk of large-scale high intensity bushfires.

While these fires are an important trigger for regeneration in some forests and woodlands, they can also have adverse effects including the loss of heterogeneity in vegetation structure, temporary increases in stream sedimentation and persistent reductions in stream flow from forested catchments. Fires can also produce large quantities of smoke and release significant amounts of greenhouse gases.

#### **Policy**

The IFA recognises that:

- Fire is an agent of ecological change, which has an important and ongoing role in maintaining biodiversity and ecological processes in Australian forests and woodlands
- The ecological effects of fire vary according to the season, frequency, intensity and scale of burning in a landscape
- Forest fires can have effects that are significant at local, regional and global levels.

The IFA considers that:

- State, Territory and the Australian governments have a responsibility to provide adequate resources for and coordinate research into the behaviour, environmental effects and social impacts of bushfires
- A decision to deliberately exclude fire from naturally fire-prone forests and woodlands can have adverse consequences for ecosystem conditions in the long term
- Communities, agencies and governments should foster cooperative arrangements in relation to understanding and managing the impacts and use of fire in Australian ecosystems.