

# Why Did We Allow Australia to Burn?

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On 11 March 2003, the IPA held a conference about the lessons to be learnt from the bushfires which swept Eastern Australia in the first quarter of 2003. This article presents a synopsis of the major themes and findings from that conference. Copies of papers delivered at the forum—‘Bushfire Prevention: Are we doing enough?’—are available on the IPA Website at [www.ipa.org.au](http://www.ipa.org.au)

**A** TRIO of experts has told the recent IPA conference that prescribed burning is the most effective tool for containing major bushfires in Australia. Properly conducted—and that means using a random rather than a programmed pattern of burning—it is also environmentally beneficial, because it replicates the conditions under which Australia’s forests and scrublands evolved.

Alas, the devastation that has occurred in the forests, parks and farms of eastern Australia during the first quarter of 2003—and which intruded deeply into the suburbs of Canberra, causing the loss of hundreds of homes—was cruelly exacerbated by the failure to conduct adequate prescribed burning. Examining the scientific evidence presented by experts at the conference, it is difficult not to conclude that much of the 1.6 million hectares of parks and forests destroyed this year could have been saved had proper prescribed burning been carried out over the past few years. So, too, could farms and houses.

## THE SCIENTISTS

Why were these programmes not carried out? The three experts—Dr Phil Cheney of CSIRO; Dr Syd Shea, Professor of Environmental Management at the University of Notre Dame and a former head of WA’s

Department of Conservation and Land Management; and Dr Kevin Tolhurst of the Forest Science Centre at the University of Melbourne—all declined to speculate, other than noting that there were limitations on the skills and resources available to conduct them and that there were elements of ‘community opposition’ to such burning.

There was no such reluctance, however, from the many delegates from fire-affected regions who crammed the auditorium. Many of them had made a ten-hour round trip by bus to present their views, and several were unhesitating in naming the influence of vocal but ill-informed green groups as the likely culprit.

These key messages—the failure of land managers to follow established scientific principles and the contribution of green policies to that failure—were two of three themes that dominated the conference. The third was property rights—the expectations of private landholders that adjoining public lands should be properly managed and the legal redress they have when that management fails.

While the text of the talks concentrated on these scientific and legal issues, the pictures used to illustrate the intensity of the fires raised more emotional responses. If the scale of human suffering—the burnt-

out homes and scorched farms—was terrible, the damage to the natural environment was awesome. Pictures of National Parks and State forests, reduced to blackened stick-like remnants of trees poking from a carpet of smouldering ash, the devastation stretching seemingly to the horizon, brought cruel reminders of the millions of small marsupials and other native animals that died in this inferno.

Any committed conservationist could only ask: what did we do to unleash such devastation? The answer, provided forcefully by all three experts, was that it was not what we did, but what we *didn’t* do that allowed the fires to reach such horrific proportions.

Dr Cheney produced studies to show that, under any given climatic conditions, the intensity of a forest fire is essentially dependent on the volume of fuel build-up on the forest floor. This volume of fuel is in turn largely a factor of how long it has been since fire of some sort passed through the area. The longer the period since it was last burned, the greater the volume of fuel available.

When build-up reaches a certain level, the intensity of the blaze produced under typical bushfire conditions puts it beyond the capacity of fire-fighters to contain. With very high levels of fuel, the fire will be

beyond the capacity of fire-fighters even under less extreme conditions.

This message was reinforced by both Professor Shea and Dr Tolhurst: although an environmentally benign programme of prescribed burning will not prevent bush fires altogether—for under extreme conditions fires will always spread—it will allow them to be contained once conditions begin to ease even a little.

This would seem to have been an important factor in the Victorian fires: while they began under extreme conditions, they continued burning through more than a million hectares for a period of months, including periods when conditions were far less extreme. High fuel build-up—the result of inadequate prescribed burning programmes over several years—would seem, on the basis of this evidence, to have been a major factor in that.

Professor Shea said that WA's good record of bushfire management in recent decades—despite the extreme conditions regularly created by the region's long, hot and dry summers—had been largely due to acceptance of this principle. He feared, however, that even in WA, the execution of prescribed burning programmes was becoming less rigorous.

Why? Much of the blame, he said, lay in attitudes imported from Britain and Europe, which saw burning as ugly and destructive to the environment. These views did not take into account the very different ecology of Australia which had been fashioned by fire long before white settlement.

Foresters have discovered, he said, that the long-living grass-trees so common in southern WA contain in their trunks a record of the fire history they have endured. This reveals an irregular, but by no means infrequent, pattern of fire which stretches back before white settlement of these areas.

Dr Tolhurst said that studies of the fire-frequency patterns in which Australia's ecology had evolved pro-

vided important lessons for prescribed burning programmes. The studies show that, in the past, fires appeared to follow a random pattern—some areas burning several times within a five- or ten-year period, while other pockets appeared to have escaped burning for long periods. This had ensured biodiversity.

A similar approach was needed with prescribed burning, he said. Rather than merely gridding a park to be systematically burned over, say, a ten- or 15-year cycle, it was better to replicate the natural order with a more varied approach, with some areas being burned more frequently than others. This would ensure that fuel build-up over large areas of forests and parks was kept to a level which prevented fires of the destructive scale and intensity of 2003, but which also ensured biodiversity.

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This would not only have ecological benefits, but would reduce the occurrence and impact of large, intense fires, reduce the cost of emergency operations and disaster relief, and create better land-management outcomes. The tragedy is that much of this thinking is already enshrined in forest management philosophies in Victoria, but has not been ad-

equately resourced or implemented. Burning is possible only on a limited number of days each year and requires skilled personnel if it is to be carried out in an effective and environmentally beneficial way. Considerably greater resources were thus needed.

#### **THE PROPERTY OWNERS**

The three scientific experts were followed by presentations of case studies from individuals. The speakers were Ian Mott, a third-generation forester and self-confessed 'bush lawyer' with experience of land management issues in NSW and Queensland; David Coonan, who presented the views of the ACT Sustainable Rural Lands Group (a group of ACT landholders, members of which have been affected by two large fires in recent years) and Russell Smith, retired Army major and a resident of Bundarra Valley, about 40km NNW of Omeo in North-East Victoria, an area which was swept by the recent bushfires.

While each took a distinctive approach, the issue of the obligations of public land managers—and the limitations even on the rights of private landholders to manage their land adequately—tended to intrude into all three presentations.

For Ian Mott the issues were fundamentally legal. The obligations on private landholders are extensive; are public land managers similarly obliged to keep the properties under their control equally safe? This is not the first time he has raised these issues, but the questions had an added relevance in the light of evidence from David Coonan's group and from Russell Smith that failure to prevent fuel build-up on neighbouring public lands was a significant factor in the intensity of the fires that struck their own areas.

Russell Smith noted that Alpine Park and State Forests in his area had not apparently been given any prescribed burning in living memory. He has been on his property almost 20 years, but believes that the pe-

riod without burning is far, far longer. The area is choked with noxious weeds and provides sanctuary for feral cats, dogs and goats which invade private property.

More relevant in the context of this forum was the fact that he estimated forest floor litter to have been in the order of 'hundreds' of tonnes per hectare rather than the 4 tonnes considered optimal for ecological balance. It was so thick and dense that it was impossible to ride a horse in parts and difficult to penetrate even on foot.

Similarly, despite repeated requests from Major Smith, the Victorian Department of Natural Resources and Environment (now Sustainability and Environment) had not forced a neighbouring absentee landowner to clear huge thickets of fire-hazardous blackberry and briar.

When the bushfires came, these unburnt public and private lands erupted into an inferno, and although a combination of rigorous fire-prevention measures (which included conducting his own fuel-reduction burning to create a fire break that extended well into the park; a decision he took unilaterally when the park managers declined) and a well-rehearsed action plan saved his own property, the fire swept though the rest of the valley.

Russell Smith now believes that there are vital lessons to be learned if this sort of disaster is not to be repeated. Fuel reduction is one important priority, but there is also a huge amount that can be done to improve planning, coordination and response. He has a dossier of planning and communications failings, many of which could have been avoided with greater training and preparation.

(For David Coonan there is a cruel irony in the fact that his group has presented extensive evidence to the ACT coroner investigating deaths that occurred during the 1991 Canberra fires. The coroner's findings are not yet public, but Coonan

is saddened that he and his colleagues may yet find themselves presenting similar evidence to any inquiry into the 2003 fires.)

One theme that emerged repeatedly in the Conference from all quarters (scientists, the case studies and delegates from the floor) is that State Governments are far more enthusiastic about creating electorally-

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popular National Parks than they are about funding the management of the parks they have created. Time and again, reference was made to the lack of management of these parks, which are progressively degraded through infestations of weeds and feral animals and which become increasing fire hazards.

This is environmentally as well as economically and politically dangerous: the habitats—and perhaps even entire populations—of some threatened species were engulfed in the huge fires that spread through the parks of north-eastern Victoria in January, February and March.

One delegate asked whether the cause of environmentalism would not be better served if there were greater commercial exploitation of National Parks to generate funding for their upkeep. It would, at least,

ensure their management was given a secure funding base, he said.

The continued creation and extension of National Parks when there was not sufficient funding to manage even existing parks was seen as evidence of State Government surrender to uninformed, urban-based green populists who were, in turn, swayed more by emotion and symbolism than by any real understanding of environmental management.

The passion generated by these fires was evident in the packed auditorium (every seat was taken and many who tried to book late had to be refused). Scores of residents and firefighters from hard-hit areas of Victoria made the journey to Melbourne to hear the experts and to have their say. Several busloads came from north-east Victoria, the epicentre of the fire disasters. For them it was a 16-hour day.

Other individuals made a similar journey from Victoria's north-west, where more than 200,000 hectares of National Park, along with extensive farmlands, were also destroyed.

### **GREEN GODS**

Many people expressed their concerns at the possible influence of green activists on forest management policy. These concerns were only confirmed by Andrew Bolt, Associate Editor of Melbourne's *Herald-Sun* newspaper, who gave a talk during post-conference refreshments. His theme was Green Religion: the triumph of a set of mystical values over science.

The thesis he advanced was that with the decline of traditional religions and belief in God, many modern individuals were left with the choice of either believing that human beings were in charge of their own destiny, or believing that they shouldn't be, and subsume human fate to omniscient Nature. Given their lack of faith in fellow man, many had chosen the latter course. The result was a value-system in which scientific principles of sound

environmental management were of little significance compared with the need for a re-creation of a mythical pristine Nature.

Elements of this attitude, he suggested, might underlie some of the pressures which discourage the prescribed burning of National Parks and State Forests.

Whether this hypothesis proves valid or not, there is little doubt that the management of Australia's parks, forests and other public lands will come under greater scrutiny as a result of the horrific fires of 2003. The scale of damage—human, economic and environmental—is such that at least three separate inquiries, Federal, Victorian and from the ACT, have already been proposed.

The overwhelming view of delegates at the IPA forum—as reflected in questions from the floor and in post-conference discussions—was that only a Federal inquiry is likely to achieve an adequate result. This is because State and Territory Governments, in their role as land managers, must share direct responsibility for any lack of prescribed burning and other forms of hazard reduction that might have contributed to these fires. This means that they could potentially face hugely expensive legal claims and that, as a result, there could be pressure on them to manipulate terms of reference and other criteria to diminish scrutiny of these important issues.

Even if this concern proves utterly unfounded, the public perception could still linger that any such investigation was a State Government inquiry into a matter in which the State had a very real vested interest. For these reasons, a Federal inquiry would have greater credibility, and is in fact essential, if we are to come to a comprehensive understanding of the causes of last summer's catastrophic bushfires.

*Graham White is an issues management consultant who chaired a session of the IPA bushfires forum.*

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# Deceit in the Name of Conservation?

JENNIFER MAROHASY

**O**N 28 January, the Queensland Government released *Report on the study of land-sourced pollutants and their impacts on water quality in and adjacent to the Great Barrier Reef*. In the associated media release, the Queensland Premier Peter Beattie said, 'Now the report is in, work on the Great Barrier Reef Water Quality Protection Plan will continue without arguments about whether land activities harm the Reef. The report is the adjudicator's decision, and is based on the best available science'.

The report, written by a panel of scientists chaired by Queensland's Chief Scientist Dr Joe Baker, makes several key findings regarding impacts of land-based pollution on the reef. A key allegation in the report's summary, highlighted in the Premier's media release, is that elevated concentrations of pesticide residue have been found in dugongs.

Since publication of the book *Silent Spring* by Rachel Carson in 1962, there has been concern that pesticides can bio-accumulate in the fat tissue of animals. Prior to 1987, organochlorine pesticides (for example, DDT) were used in Great Barrier Reef catchments, including for sugarcane production. These chemicals have since been banned due to global concerns about their persistence in the environment and their capacity to bio-accumulate.

I first became aware of the specific issue of pesticide in dugongs in August 1998. A senior officer with the Great Barrier Reef Marine Park Authority (GBRMPA) phoned me with the news that a soon-to-be-

published research study had found that elevated levels of pesticide residue, most likely from cane farming, were accumulating in the fat tissue of dugongs. Media headlines followed, including *Pesticide in reef creatures* and *Cane burning link with dioxin in dugong*.

I obtained a copy of the study and found it was primarily an analysis of the type and quantity of dioxins found in the fat tissue of dugong carcasses that had been killed in fishing nets.<sup>1</sup> Dioxins are a group of organochlorine compounds commonly associated with industrial waste incineration. The research paper made reference to a different study that had analyzed the dioxins found in soils under sugarcane cultivation and commented that the cane-land soils and dugong fat samples both had elevated levels of the same type of dioxins.

Concerned by this news, I contacted a dioxin expert at the University of Queensland. Dr Brian Stanmore informed me that the type of dioxin considered by the GBRMPA to be elevated in the dugongs was common and the least toxic of all dioxins. Furthermore Dr Stanmore indicated that the level of dioxins found in the dugongs was less than the national average in people in the United States. He commented that 'it looks like the dugong is better off than we are'.

The GBRMPA study clearly stated, 'All (dugong) carcasses were in good condition at the time of sampling. All animal deaths were confirmed or suspected (fishing) net drowning.' However, instead of focusing on net fishing practices, the