



Book Review

Feeling the heat – international perspectives on the prevention of wildfire ignition

By Janet Stanley, Alan March, James Ogloff and Jason Thompson

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The focus of this book on ignitions is both a welcome and timely reminder of the basic elements of why wildfires start, often overlooked due to high-profile media interest on the increasing number of very large wildfire incidents.

Given the background of the authors there is an understandable Australian take, especially using the State of Victoria as a case study, however the book also draws upon and compares current incidents and approaches in North and South America and Europe, notably California and the United Kingdom.

The book is structured into three sections with relevant chapters, with each subject clearly introduced and concluded within a chapter. Section one provides an overview of prevention of ignitions in Chapters 1–4. Section two addresses prevention measures in detail in Chapters 5–9. Finally, section three defines the position and role of prevention and possible projects and programmes in Chapters 10–11.

Section one sets out the problem, with Chapter 1 over-viewing prevention and ignition, drawing upon international examples. Importantly the topic of ignition is introduced as well as compounding factors such as climate change and social issues. The introduction of prevention, within the context of ignition is then outlined, highlighting the policy desire for increased response, which reduces the scope to define effective prevention measures, depending on the definitions used. Critically, this chapter argues that suppression resources will need to be considerably increased given the predicted increase in wildfire in the next few decades. Chapter 2 explores why wildfires happen. This introduces the topic of fire data collections, critical information gathered on cause and motive, which is discussed further in the book such as in Chapter 9. Importantly this chapter sets out to challenge the idea that wildfire is a ‘natural’ phenomenon, with the implication that nothing can be done to prevent them. The

authors argue that wildfires are in fact largely an anthropogenic phenomenon linked to social behaviour; thus the authors propose human ignited wildfires are not natural hazards or natural occurrences, therefore requiring subtle human engagement to resolve. Whilst the severity of past wildfires complemented evolving ecosystems, resulting in mosaics of vegetation, in some cases today’s wildfire incidents can be all consuming, resulting from inappropriate human planned management practices. Chapter 3 focuses on the social-economic elements of ‘firelighters’, especially deliberate fire setting. The book defines offenders’ characteristics, with important coverage of reoffending, mental illness, adolescence, unemployment, unstable childhoods, low educational attainment, drug and alcohol dependency and lower socio-economic backgrounds which contribute to motives. The authors state that care is needed to ensure effective profiling and rather than generalisations, given limitations on wildfire specific evidence as well as low conviction rates for arson. Chapter 4 covers ignition patterns, setting out the importance of understanding the patterns of wildfire ignition linked to cause, to ensure successful prevention. This includes understanding both spatial and temporal patterns of ignition to inform the development of prevention programmes which target deliberate fire setting hot spots, especially in the socio-economic challenges of locations in the rural-urban interface.

Section two considers prevention approaches, with Chapter 5 outlining the current positions. It highlights the limited research on prevention and evaluation of effective programmes, especially in the context of wider societal challenges discussed in Chapter 4. The chapter sets out the international accepted risk frameworks, with details on Australian programmes, but also their limitations, such as fragmented cross governmental or sectorial working as well

as the critical exclusion of ignition prevention, which has limited progress. Chapter 6 provides a case study of wildfire prevention in Victoria, Australia. Whilst acknowledged as a leading example of local governmental level approaches, such as urban planning, emergency planning (however biased towards response) and other physical aspects, weaknesses remain in the context of risk factors concerning social-economic and environmental requirements, for example existing properties and illegal sub-standard structures. Chapter 7 sets out the relationship between people and communities with wildfire prevention. Importantly it highlights whilst fire authorities desire engagement with citizens on wildfire, creating 'shared responsibility', the realisation of this practice, such as true consultation and engagement in prevention frameworks, is rare. The authors argue that emergency services need to share power and decision making with communities, including financial resources, knowledge and data. Chapter 8 argues that the present fuel reduction approaches to prevention (to reduce the size and intensity of wildfires), are undertaken to the exclusion of other possible prevention activities. The present approach of larger scale burning, in comparison to smaller and more intimate burning mosaics, only offers short-term solutions but creates long-term costs. The effectiveness of 'environmental modification' by prescribed burning to prevent wildfire impact is questioned due to the lack of effective evaluation which could be counterproductive in some habitats. Chapter 9 concludes the section with a look at the challenge of fire data in relation to ignitions, especially the desire to exploit the capacity for large scale collection due to advances in data storage capacity, at the expense of understanding 'why' things happen. It concludes with providing four recommendations for the State of Victoria, based around improved inter-departmental data collection and analyses to bringing data about people and places together.

The final section considers the way forward. Chapter 10 defines a new approach to wildfire prevention framed by the timescale of climate change adaption. The barriers to prevention are defined as well as an integrated model of wildfire management, where prevention of ignition is a peer of land use planning, impact reduction, suppression and post-fire recovery, with the need for them to be part of a cross-cutting framework. The authors propose a new cohesive governance model needed for new policy and a broader range of programmes across state, regional and local structures to address the fragmentation in current risk management chains, as well as across strategic, tactical and operational levels. Chapter 11 highlights the broader range of prevention programmes required, drawing from the themes laid out and explored in the previous chapters, using layers of primary, secondary, and sometimes tertiary prevention.

The authors' arguments, topics and solutions will resonate with many in the wildfire community, especially subjects such as the limitations of present data collection, limited focus on social elements in terms of wildfire prevention measures in targeted or affected communities, and the balance between ignition prevention and fuel reduction via prescribed burning.

Whilst strongly focused on Australia, the book has significant value as a framework for other countries that are developing and/or reviewing their wildfire ignition prevention strategies, programmes and practices.

Rob Gazzard
MICFor MRICS

Advisor, Contingency Planning and Wildfire,
Forestry Commission, United Kingdom.
Email: rob.gazzard@forestrycommission.gov.uk

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