Homeowners do not maintain their bushfire protection measures leading to higher risk of property damage and life loss

Natural Hazards Research Australia

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The Maintenance of Bushfire Protection Measures

The Final Report of the NSW Bushfire Inquiry (2020) recommended that the New South Wales government establish an enforcement, compliance, and education program for routine inspection of buildings to improve bushfire protection. This research explores the motivations and barriers towards achieving such a program and the potential benefits for ongoing bushfire protection.

The research

What is the best approach to encouraging better rates of maintenance?

The research focusses on the importance of maintaining dwellings and private property for bushfire protection, based on evidence from numerous bushfire events. It highlights the role of land use planning and building standards in regulating bushfire protection and points out the lack of discussion in literature about compliance with bushfire protection measures beyond the time of development consent. The study aims to fill a significant research gap and improve knowledge of the topic, as well as identifying the best ways to encourage, promote or legislate ongoing maintenance actions.

Human behaviour

The study recognises the use of motivational theory in developing a conceptual framework for understanding the barriers and motivators for achieving ongoing compliance with bushfire protection measures in New South Wales. The research explores the effectiveness of punishment, self-motivation, and external motivators in achieving compliance with development consent conditions. The hypothesis is that a combination of different motivational aspects may be the most effective method of improving overall maintenance of bushfire protection measures. The research will explore the effectiveness of positive reinforcement of certain values and incentives such as remunerative, moral, and coercive incentives, forming research axes. The research axes will be used to produce individual conclusions and intersecting themes to identify the best possible combination of solutions to improve the maintenance of bushfire protection measures.

Research aims

The research has three main questions.

1. Whether assumptions that bushfire protection measures are not being maintained are justified.
2. Identify the motivations and barriers to the maintenance of bushfire protection measures.
3. Investigate the potential responses to improving compliance/maintenance, including enforcement, compliance, and education programs.

The research will also explore other potential solutions to the issue of maintenance.

Research methods

The research uses a mixed methods approach to data collection. LiDAR data is used to analyse current levels of landscaping maintenance. Semi-structured interviews will be used to collect qualitative data from homeowners and key stakeholders.

Further information

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