Living with Bushfire Risk: Residents' accounts of bushfire preparedness

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Simply Providing Information is Insufficient

Reports on recent bushfire impacts (e.g., McLeod, 2003; COAG) identified a need for greater bushfire education and preparedness in communities susceptible to bushfires. So far, the primary strategy for conducting education has been providing factual information. However, research has established that simply making information available does not increase the adoption of preparedness measures. To investigate what predicts whether people prepare we conducted a pilot study to gain first hand accounts of peoples' attitudes to bushfires and its mitigation. The objective was to understand why people prepare or don't prepare and to identify the issues that need to be addressed in risk preparedness communication programs to facilitate bushfire preparedness. In-depth telephone interviews regarding attitudes to bushfire preparation and preparation behaviour were conducted with 17 residents in high bushfire risk suburbs of Hobart at the start of the 2004/05 Tasmanian bushfire season (October – December). Interviews were fully transcribed and then systematically analysed using various grounded theory analysis strategies and the qualitative data analysis software program, ATLAS.ti.

Living in or near bush: A Conscious Choice
The participants were aware that the environment in which they live is vulnerable to bushfires. Nevertheless, they chose to live there for lifestyle reasons (e.g., living close to nature, living healthier, having more control over their lives).
However, awareness of this risk did not always translate into preparing for bushfire hazards

Factors Increasing the Likelihood of Preparing

Most participants (13) perceived preparing as important. Factors that increased the likelihood of preparing included:
• desire to stay in the event of a fire & so save lives and property
• discussion of bushfire issues amongst community members
• belief that preparing makes a difference
• believe that chances of surviving better when staying in the house
• high levels of wisdom/knowledge (fire, weather, bush conditions)
• know it is difficult to get out (i.e. limited road access, difficult road conditions)
• desire to return help received in earlier bushfires (social reciprocity)
• accepting personal & social responsibility
• being young, healthy, experienced, independent & having faith
• high attachment to house & property
• reduces anxiety and increases feelings safety
• no insurance
• preparation has become routine/habit

Factors Reducing the Likelihood of Preparing

Four participants perceived preparing as low priority. Factors that reduced the likelihood of preparing included:
• low attachment to property & intention to leave if fire threatens
• don't believe that staying in house improves chances of surviving
• low levels of wisdom/knowledge
• belief that preparedness measures will not make a difference
• willing to take the risk
• disagreement among family members
• believe sufficiently prepared
• anxiety about bushfires
• well insured
• being old and/or disabled
• having dependents (i.e. children, elderly)
• fear of social disapproval & legal and personal actions
• belief that other activities are more important

Big Differences:

What is Adequate Preparedness?
Beliefs regarding adequate preparedness ranged from only mowing the lawn regularly to adopting all recommended protective measures.

When to Implement Preparedness Measures?
For some respondents, preparedness activities were undertaken at the commencement of the season.
However, for others, action was not taken until the threat was imminent.

Some put precautions, which could have been implemented earlier, in place only *when* dangerous weather (e.g, receipt of fire warning, awareness of hot, dry, windy conditions) and bush conditions prevailed, or when fire was perceived as a direct threat to their property.

While information on protective measures is available during this period, opportunities for comprehensive protection are unlikely within the short time frame afforded by this approach to preparedness. Furthermore, the high levels of stress likely to prevail at this time may further reduce the feasibility and effectiveness of protective actions.

These perceptions hold prominent positions in peoples' models of bushfire risk, and must be taken into account

Pro-environmental attitudes

Lifestyle choices and environmental attitudes also influenced support for some bushfire preparedness and mitigation measures but not others.
They were generally happy to support protective measures that do not harm the environment (e.g., keeping their gardens clear of leaves and mowing the lawn) because it does not place them in a dilemma between their love of nature and preparing.

However, irrespective of their general attitudes to safety, they are very reluctant to carry out mitigation measures that adversely affect their natural living environment (e.g. controlled burning, felling eucalyptus trees). They perceive that it damages the flora and fauna in their living environment and thus destroys the very advantages that made them chose to live in or near the bush.

A potential solution to the dilemma presents ***positive preparation***, which one participant implemented. Positive preparation includes:
- a house design that offers maximum fire resistance regarding position, building material, and building features, and
- maintaining a lush and green garden of native vegetation with water features, both of which are suitable for the environment *and* fire resistant
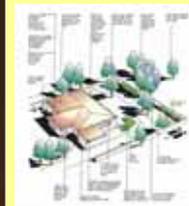
Enhancing Response Capacity: Community Perspective & Collaboration

People actively interpret their relationship with bushfires and decisions whether to prepare or not are influenced by several psychological and social factors. These factors often interact in complex ways and are highly specific to the location and people. Consequently, how people make sense of their relationship with bushfires and the factors that influence preparedness decisions need to be take into account in the risk communication process. Firstly, the beliefs/attitudes and social conditions that undermine preparing need to be understood & addressed. Then, the beliefs/attitudes and social conditions that increase the likelihood of preparing need to be considered. The issues discussed here can inform the development of the risk communication process. The communication design should include, for example:

a) engaging *local* communities to identify prevailing personal beliefs/attitudes & social norm and conditions that reduce the likelihood of preparing and address & change these factors
b) providing people regularly with information tailored to their specific living circumstances and to the specific phases of preparation in a manner they can relate to and understand
c) encouraging and facilitating discussion of pertinent issues amongst community members, and
d) assisting & encouraging people to interpret preparedness information relative to its implications for themselves, their family, and for activities *they* consider to be important

To enhance preparedness/readiness, risk communication strategies should build on motivation factors (e.g., responsibility, stay, feeling safe). The strategy also needs to include information regarding specific measures that can be implemented at the various stages of the preparation process, especially before the fire season. To enhance beliefs in the effectiveness of preparing, this information needs not only to introduce the measures but also present specific information describing how & why these measures assist protecting lives and properties and can make a difference.

Additional work is required to fully understand the mechanisms that influence levels of preparedness and the reliance of some people on preparing only when directly threatened by bushfire. Once this is done, it will be possible to develop comprehensive risk communication measures.