

FIRE NOTE

ISSUE 101 DECEMBER 2012

GENDER AND BUSHFIRE

DEFINITION: GENDER

Gender refers to socially learned behaviour and expectations that distinguish masculinity and femininity.

– Peterson and Runyan 1999



▲ There is a demonstrated need to develop research on gender and bushfire in Australia.

SUMMARY

Gender is largely ignored as a factor in bushfire preparedness and response in Australia. The research undertaken as part of the *Effective Communication: Communities and Bushfire* project shows that policy makers and fire agencies are still largely 'gender-blind'. This position is out of step with international approaches to disaster and emergency management, which have begun to integrate a gendered analysis into understandings of disaster preparation, response and recovery. Over the last 10 years, international research has documented the way in which the social construction of gender roles and inequalities affect the way which men and women experience, and are affected by, disaster events. Australian research on bushfire is yet to make use of the insights from this international research. This *Fire Note* highlights the importance of gender matters in the Australian bushfire context and considers how the international literature on gender and disaster relates in the areas of risk perception and exposure, preparedness behaviour and communication, and response and recovery. It aims to position gender and bushfire in the context of the wider international literature and recognise gender and disasters as a field of research.

ABOUT THIS PROJECT

The *Effective Communication: Communities and Bushfire* project is part of the Bushfire CRC *Communicating Risk* program. The project was established to explore community networks and analyse how they may facilitate the understanding of, and response to, bushfire communication. This was achieved through a series of 12 case studies across Australia. The project aims to increase community resilience to bushfires by developing a robust and analytic understanding of cohesion and fragmentation. The project will assist in shaping communication strategies, preparedness education, messages and delivery modes to increase bushfire preparedness. The project will generate critical knowledge and theory of effective strategies and options for communication in bushfire-prone communities, and provide an understanding of the bases of community and its mobilisation around risk.

AUTHORS

Dr Meagan Tyler (right), Professor Peter Fairbrother and Dr Richard Phillips, Centre for Sustainable Organisations and Work, RMIT University. For more information, contact meagan.tyler@rmit.edu.au



BACKGROUND

The study of gender and associated questions about the social construction of masculinity and femininity have become established as important elements of social science research. While gender has often been a focus in disciplines such as sociology and anthropology, gender and disaster is still an emerging area of research, and in Australia there is only very limited literature available on gender and disaster. What is available mainly considers flooding events and drought. Current published research and policy, dealing specifically with bushfire in Australia, generally does not take gender into account and does not make gender a focus of analysis. This is a prominent omission from a social science perspective, especially given the highly gender segregated nature of rural living in Australia, and the highly masculinised nature of firefighting and the emergency services.

BUSHFIRE CRC RESEARCH

Between April and July 2011 interviews were conducted across Western Australia, Tasmania and New South Wales with members of fire agencies and government departments as part of the broader *Effective Communication: Communities and Bushfire* project. Interviewees included those involved in policy-making, bushfire management, media and communications, bushfire safety and education and bushfire response.

These interviews were analysed and the findings support the contention that gender is a neglected area in formal understandings of bushfire in Australia. None of the interviewees spoke, unprompted, about the concept of gender. When asked specifically about gender, however, many responded by saying that they simply had not considered the issue before. For example:

“There hasn’t been any work done on that [gender] specifically, no ... it hasn’t got that sophisticated ... I really don’t know. Yeah, I couldn’t – I just don’t know if it’s [gender] an issue or not. I haven’t heard anyone discuss it.”

– Participant six, Tasmania

“No, no I don’t think I’ve really given much thought to that [gender].”

– Participant six, Western Australia

“No I don’t slant anything gender-specifically. No, I wouldn’t do that. Whether I should I don’t know. I’ve never even thought about that.”

– Participant nine, Western Australia

A few interview participants went further and stated that from their perspective, gender was not only an unimportant issue for their organisations, but was irrelevant. By way of example, a participant in Western Australia was asked “Do you think the issue of gender is important or not really relevant to what you do?” The participant stated “No, not really” (Participant eight, Western Australia).

In contrast, however, a number of other participants mentioned that while gender was not formally part of their organisation’s understanding of bushfire, they felt that gender was important in regard to bushfire preparation, communication, decision making and response. This was because of either personal experience or evidence in the field. For example:

“I think gender is relevant but I don’t think we particularly take it into account ...”

– Participant five, Tasmania

“I do think we need to consider that often women, especially in regional communities, that are at home and making that decision [to stay or go] on their own ... yes, I think there’s a gender element.”

– Participant 10, Western Australia

“The research tells us that most of the people that are killed by fire are men. Women more [often] tend to take early action and go, whereas men will want to stay and defend and all of that sort of stuff ... so yeah there are certainly some gender issues there. Whether we’re on top



▲ There is a greater need to understand and document women’s contributions in bushfires.

Photo: CFA Strategic Communications

of that and we’ve got to the point where we know exactly how to manage that is another matter.”

– Participant one, Western Australia

“Where I’m from ... it’s more a rural area ... there are a lot of women that are left at home with children or they’re carers for [the] elderly or disabled, and the husbands will go off into town to work. I see a need to target those women.”

– Participant three, New South Wales

While this data implies that gender is not well understood or integrated into formal understandings of bushfire in Australia, either in fire agencies or in policy discourses, it also suggests that there are people active in bushfire policy and management who are aware that gender is an issue and feel that it should be included in approaches to bushfire communication, preparation and response. These concerns further demonstrate the need to develop research on gender and bushfire in Australia.

RESEARCH OUTCOMES

INSIGHTS FROM INTERNATIONAL RESEARCH ON WOMEN AND DISASTERS

Given the lack of literature on gender and bushfire in Australia, and indeed on gender and natural disasters more generally, it is necessary to draw on the larger body of international research dealing with gender and disasters. Overall, this research shows that women are more vulnerable to the effects of disasters. The literature also suggests that there are substantial gendered differences evident in the following stages of a disaster (Enarson and Morrow 1998):

- Risk exposure
- Risk perception

- Preparedness behaviour
- Warning communication and response
- Physical impacts
- Psychological impacts
- Emergency response
- Recovery
- Reconstruction.

RISK EXPOSURE

The social construction of gender roles means that women are often especially vulnerable in emergency situations. This is particularly evident in developing nations, where women are significantly over-represented in natural disaster death tolls. In the tsunami that impacted south east Asia in 2004, women made up as much as 80 per cent of the dead in certain parts of Indonesia, India and Sri Lanka (Enarson and Chakrabarti 2009). Such high death tolls can be due to a range of factors, including gendered restrictions on movement in public, dress codes, access to information and child-caring responsibilities. However, women’s increased vulnerability has also been documented in wealthier nations such as Japan, where women, particularly socially marginalised women – such as single mothers – have been shown to be more likely to be injured or killed during earthquakes (Enarson and Chakrabarti 2009).

Historically, the high mortality rate for women is not found in Australian bushfires. Quite the opposite is the case. In data taken from death toll statistics in Australian bushfires over the last 100 years, it was found that men are significantly over-represented; however the rate of women dying in bushfires compared to men has started to increase over

the last 50 years (Haynes *et al.*, 2010). There has been no in-depth investigation into why there are gendered differences in disaster behaviour in Australia and how these might lead to increased risks.

RISK PERCEPTION

Significant gendered differences in risk perception have been documented in international disaster research, and it is possible that a clearly delineated division of labour, especially in regard to women's care-giving responsibilities, tend to make women more risk-averse. Stemming from this distinction, some scholars and disaster relief agencies argue for recognising and enhancing the importance of women's role as risk managers (Enarson and Chakrabarti 2009). In the Australian context, however, the limited literature available shows that rather than trying to promote or harness women's tendency to be risk-averse in the context of bushfire, there is evidence that women are encouraged to learn and re-create more 'masculine' risk-taking behaviour (DeLaine *et al.*, 2008). That is, women are seen as needing to be taught 'correct' risk perception rather than recognising that, due at least in part to the social construction of gender, men and women often have differing perceptions of risk.

Gendered differences in risk perception may prove useful with regard to bushfire threats in Australia. Prior to the Black Saturday bushfires in Victoria in 2009, the commonly called 'stay or go' message promoted by fire agencies arguably placed emphasis on staying to defend a house during a bushfire. It appears, however, from the limited existing literature, testimony at the subsequent Victorian Bushfires Royal Commission and research conducted, that women are much more likely than men to want to leave early, rather than to stay and defend their house. The available research on bushfire-related deaths in Victoria shows a notable difference between women's desire to leave during a bushfire threat and men's desire to stay and defend the family home. This research reported, in a number of instances, disagreements between men and women over the appropriate response to a bushfire, with the result being the eventual decision to stay in an area of danger. Many of these instances resulted in individual deaths, and in some cases even the death of entire families (Handmer *et al.*, 2010). Acknowledgement of the importance of women's role in decision making, therefore, may be a useful strategy to promote in regard to bushfire preparedness and response.

PREPAREDNESS BEHAVIOUR AND COMMUNICATION

The international literature on gender and disasters shows that there are significant gender differences in disaster preparedness at the level of the family/household. For



▲ Death toll statistics in Australian bushfires over the last 100 years show that men are significantly over-represented, however the rate of women dying in bushfires compared to men has started to increase over the last 50 years. Photo: CFA Strategic Communications

END USER STATEMENT

Gender is a significant factor in decision making by families and individuals during bushfires, a fact again highlighted during the 2009 Victorian bushfires.

The fact that gender differences are significant in disasters is already well-understood. The role of women and their marginalisation in the Australian bushfire context is less well known.

The opportunity this research presents is to better understand the way in which these can be harnessed to influence better bushfire communications, preparedness and response strategies.

– John Schauble, Manager Policy and Planning, Fire Services Commissioner, Victoria

a number of reasons such as connections outside the household and gendered division of labour and literacy, men in a given household often have greater knowledge of formal emergency procedures than women, making them better prepared in a disaster event. Why there is a lack of knowledge transfer within the family/household is still not clear from the available research. In the Australian context, however, the lack of knowledge transfer may be compounded by the fact that bushfires are still largely seen as strictly "men's business" (Eriksen *et al.*, 2010).

Warning communication also has several gendered elements, some of which may relate to Australian bushfire preparedness and response. Communication between formal organisations and citizens can pose a major problem with regard to disasters. International research suggests that formal messages often either do not reach women, or are secondary sources of information, as "women are more likely to receive risk communication due to their social networks" (Enarson and Morrow 1998). In both developed and developing countries it also appears that if women receive and understand disaster warnings, they play an important and often unrecognised role in spreading the message through informal social networks (Enarson and Chakrabarti 2009). Women can therefore be a crucial link in risk communication between the family unit and the community. Again, this may be a useful area for bushfire research related to communication and community, as well as policy aimed at ensuring risk warnings are received, disseminated, and acted upon.

RESPONSE AND RECOVERY

Gendered differences in disaster response have received considerably more attention than other phases of disaster. Across both developed and developing nations it is noticeable that men make up the bulk of official disaster response efforts, while women's contributions remain largely informal. This gendered division of labour has resulted in a lack of recognition of women's contribution to emergency response efforts.

The gendered division of labour is clearly evident in the example of Australian bushfire response. Fire agencies are overwhelmingly male dominated, with women making up less than a quarter of volunteers in Australia (Beaston and McLennan 2005). Furthermore, these volunteers are mostly placed in non-operational or supportive roles. Indeed, the emergency management sector could accurately be described as “an old boy’s network” in many countries and Australia is no exception to this (Enarson and Morrow 1998). Not only does this situation make women’s informal contributions largely invisible, it also tends to exclude women from the types of formal education and training which may help the community prepare for, and survive, a disaster event. In response to the research, agencies have worked on addressing this in recent years.

In terms of community recovery after disaster, women’s role cannot be overstated (Enarson and Chakrabarti 2009). There is generally an increased burden of care-giving in the recovery and reconstruction phases and this is disproportionately shouldered by women. The often informal processes of rebuilding a sense of safety, community and resilience are also largely undertaken by women (Enarson and Morrow 1998). In addition, women are particularly vulnerable to domestic violence during the post-disaster recovery phase (Enarson and Morrow 1998).

There are many other areas of bushfire-related research, including women’s experiences of domestic violence after bushfires (where only limited academic research has been undertaken in Australia). As Parkinson *et al.*, (2011) point out, more consistent and comprehensive studies in areas such as this are required.

HOW COULD THIS RESEARCH BE USED?

It is clear from the international research that gender roles and inequalities need to be taken into account in order for an accurate and comprehensive understanding of disaster preparedness and response to be achieved. There are several questions to be considered by

agencies and researchers in reviewing the matters raised in the existing international literature.

1. While women globally are at greater risk of death from disaster, this is not demonstrated to be the case in Australia in regard to bushfires. The reasons men are more likely to die during a bushfire, and why the number of men dying in bushfires is declining, while the number of women dying is increasing, are areas which warrant further investigation.
2. The gender differences in regard to preference for evacuation have been noted in international disaster research but are yet to be fully explored in the context of bushfires in Australia. This area is especially relevant in the context of the findings of the Victorian Bushfires Royal Commission, the associated reviews of household decision making processes and the official policies on bushfire preparation.
3. There is a greater need to understand and document women’s contributions in bushfires. Some work has been done on women’s marginalisation in formal agencies, for example, volunteer fire brigades, but there is still little on how women do actually contribute in more informal ways. This is out of step with the international literature on disaster preparation and response, which has moved towards recognising women’s roles and highlighting their importance as communicators and risk managers.
4. International research and anecdotal reports show that women are especially vulnerable to domestic violence in the recovery and reconstruction phases following disasters, but there is still only limited academic literature on women’s vulnerability to domestic violence after bushfires in Australia. This should be an important area for further education and awareness.

REFERENCES / FURTHER READING

- Beaston R and McLennan J, 2005, Australia’s Women Volunteer Firefighters: A literature review and research agenda, **10 (2)**, *Australian Journal of Volunteering*, 18-27.
- Enarson E and Morrow H (eds), 1998, *The Gendered Terrain of Disaster: Through Women’s Eyes*, Praeger, Santa Barbara.
- Eriksen C, Gill N, Head L, 2010, The Gendered Dimensions of Bushfire in Changing Rural Landscapes in Australia, **26 (4)**, *Journal of Rural Studies*, 332-342.
- DeLaine D, Pedler T, Goodman H, Rowe C, 2008, Fiery women: consulting, designing, delivering and evaluating pilot women’s bushfire safety skills workshops, paper presented at the Bushfire Cooperative Research Centre and Australian Fire and Emergency Services Authorities Council conference, Adelaide Convention Centre, Australia. 1-3 September.
- Handmer J, O’Neil S, Killalea D, 2010, Review of fatalities in the February 7 2009 Bushfires, Prepared for the Victorian Bushfires Royal Commission, Centre for Risk and Community Safety RMIT University, Melbourne and Bushfire Cooperative Research Centre, East Melbourne.
- Haynes K, Handmer J, McAneney J, Tibbits A, Coates L, 2010, Australian bushfire fatalities 1900-2008: Exploring trends in relation to the “prepare, stay and defend or leave early” policy, **13 (3)**, *Environmental Science and Policy*, 185-194.
- Parkinson D, Lancaster C, Stewart A, 2011, A numbers game: women and disaster, **22 (sp)**, *Health Promotion Journal of Australia*, s42-s45.
- Peterson V and Runyan A, 1999, *Global Gender Issues*, Westview Press, Boulder.

Fire Note is published jointly by the Bushfire Cooperative Research Centre (Bushfire CRC) and the Australasian Fire and Emergency Service Authorities Council (AFAC). This Fire Note is prepared from available research at the time of publication to encourage discussion and debate. The contents of the Fire Note do not necessarily represent the views, policies, practices or positions of any of the individual agencies or organisations who are stakeholders of the Bushfire CRC.

Bushfire Cooperative Research Centre
Level 5/340 Albert Street
East Melbourne VIC 3002
Telephone: 03 9412 9600
www.bushfirecrc.com

Bushfire CRC is a national research centre in the Cooperative Research Centre (CRC) program, formed in partnership with fire and land management agencies in 2003 to undertake end-user focused research.
Bushfire CRC Limited ABN: 71 103 943 755

Australasian Fire and Emergency Service Authorities Council
Level 5/340 Albert Street
East Melbourne VIC 3002
Telephone: 03 9419 2388
www.afac.com.au

AFAC is the peak representative body for fire, emergency services and land management agencies in the Australasia region. It was established in 1993 and has 35 full and 10 affiliate member organisations.