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School of Social Work
University of Windsor
401 Sunset Avenue
Windsor, Ont.
Canada N9B 3P4
Email: cswedit@uwindsor.ca

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Gender and Climate Change in Rural Australia: A Review of Differences

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Heather Boetto¹ and Jennifer McKinnon¹

¹ Charles Sturt University

Abstract

This paper outlines the results of a literature review exploring the relationship between gender and climate change in rural Australia. Whilst the climate change debate in Australia has largely focused on environmental and economic implications, little attention has been given to the social implications of climate change. The focus of this study is on the climate change impacts on Australian rural women and men, with particular emphasis on the disadvantage experienced by rural women. A key finding in the review was that rural women and men adapt to climatic events, such as, drought and water shortages, in different ways. Outcomes of the review also highlight the dearth of Australian research that focuses on rural women and climate change. We contend that social workers have an ethical responsibility to be aware of the impact of climate change on disadvantaged groups, such as, rural women. The fact that gender equality has been largely ignored in the Australian climate change debate points to a need for social work involvement in climate change advocacy, research, and policy development, in an effort to redress the imbalance.

Keywords: gender, rural, climate change

As the world grapples with issues associated with climate change, social work too has begun to engage with this emerging field of practice. In Australia, recent changes to the Australian Association of Social Workers (AASW, 2010) code of ethics now requires social workers to actively promote a healthy 'natural' environment as part of their commitment to social justice (p. 13). Although implications for practice are still being articulated, this means Australian social workers have an ethical responsibility to undertake sustainable practice and to create change for the inherent social wellbeing of society.

This paper draws attention to the relationship between gender and climate change in rural Australia, and in particular to the disadvantage experienced by rural women. The social implications for rural women adapting to climate change in the context of recent severe drought and associated water shortages is concerning. Given the lack of attention to the gendered implications of climate change, this paper reviews Australian literature in an attempt to organise and summarise pertinent issues, especially those relevant to social workers in practice and in policy development.

Climate Change

Global warming refers to an increase in greenhouse emissions that is causing an unprecedented rise in temperature trends (Garnaut, 2008; Intergovernmental Panel on Climate Change (IPCC), 2007). Recent research has confirmed an anthropogenic basis for at least part of the increase in greenhouse gases over the past 150 years, concomitant with the commencement of the industrial revolution (Garnaut, 2008; IPCC, 2007). Human activities that were initially well intentioned, such as, deforestation and mining, are the main contributors to an increase in greenhouse gas emissions. Population growth coupled with high levels of energy consumption and a global reliance on economic growth for prosperity has also exacerbated climate change. Scientists and environmentalists are warning governments about current impacts and impending consequences for the world if the rise in greenhouse gas emissions is not mitigated (IPCC, 2007).

Whilst linking any one particular climatic event with climate change is not scientifically sound, an overall trend indicates that extreme weather events are increasing in frequency and intensity across the world due to climate change impacts (IPCC, 2007). In Australia recent extreme weather events, such as, drought, bushfires and floods have been viewed by some climatologists as being undoubtedly linked to climate change (Climate Commission, 2013; Garnaut, 2008, Commonwealth Scientific and Industrial Research Organisation (CSIRO) & Australian Bureau of Meteorology, 2007). At the beginning of the century, widespread drought crippled much of the country for almost a decade, causing severe water shortages and decline in food production (Alston, 2006, 2010a; Alston & Kent, 2004). In 2009 the state of Victoria experienced devastating bushfires known as 'Black Saturday'. At the same time the state of Queensland experienced severe flooding known as the 'Queensland Big Wet'. Outcomes for both climatic events have included loss of life and large scale social and economic costs for communities, including reduced incomes, poverty, and an increase in health and welfare concerns (Alston, 2010a).

Many other social impacts of climate change have been identified internationally. For example, an increase is expected in death rates of vulnerable groups, such as, babies, older

people, and people who suffer from existing health conditions due to rising temperatures and heat waves (Lam, 2007; McMichael, Woodruff, & Hales, 2006). Increases in domestic violence and other violent crimes have also been associated with temperature rises (Anderson, 2001; Anderson, Anderson, Dore, DeNeve, & Flanagan, 2000), and climate variability related events, such as, extended drought have already had a distinct effect on the mental health of rural communities in Australia (Anderson, 2009; Dean & Stain, 2010). Lack of water and food shortages have been associated with conflict between competing groups (Levy, Thorkelson, Vorosmarty, Douglas & Humphries, 2006) and a rise in sea levels due to climate change is impacting on the survival of whole communities and is expected to vastly increase the number of environmental refugees seeking a safe and stable place to live (Besthorn & Meyer, 2010; IPCC, 2007).

The Australian Rural Context

People living in rural Australia are significantly disadvantaged on almost all socio-economic indices compared to their metropolitan counterparts. In general, rural Australians experience poorer health and have higher mortality rates, lower life expectancy, and suffer from higher rates of chronic health conditions (Alston, 2010b; AIHW, 2006). Rural Australians also experience lower levels of education, higher rates of unemployment, lower income levels, and poorer housing than people living in metropolitan areas (Alston, 2010b; Cheers, Darracott, & Lonne, 2007; Cheers & Taylor, 2005). In addition, a large study that considered the geographical distribution of social disadvantage across Australia in 2004 found that rural areas were over-represented on social disadvantage measures in the two jurisdictions with the highest populations (Vinson, 2007). Across New South Wales and Victoria, 31 out of the top 40 most disadvantaged areas were rural communities (Vinson, 2007, p. 30, 34).

Rural Australia has also experienced significant structural and social change over the last few decades. Cheers, Darracott, and Lonne (2007) identify a series of factors, including globalisation, financial market deregulation, technological advances, demographical changes, and economic restructuring as main contributors to rural decline in Australia. Agricultural industries have seen a steady decline, with agricultural exports declining from over two-thirds of total exports in the 1960's to just over one-fifth in 2003-04 (Productivity Commission, 2005). Agriculture's contribution to gross domestic product fell from 14% in the 1960's to 6% in the 1980's, and employment in the agriculture sector has almost halved since the same period to a little over 4% (Productivity Commission, 2005). Over time the withdrawal of services, such as banking institutions, government services, and private businesses, has been linked with high rates of unemployment, and poverty in rural areas (Cheers et al., 2007; Cheers & Taylor, 2005).

Gender Disadvantage in Australia

Gender disadvantage in Australia is evident on almost all socio-economic indicators, with women fairing considerably worse than their male counterparts. A report by the Australian Human Rights Commission (AHRC, 2009) revealed the serious consequences of the gender gap in Australia by highlighting the cumulative nature of gender inequality across the lifecycle. For example, average superannuation balances for women as a proportion of men's decrease from 71.1% for women 25-34 years of age to 46.1% for women 60-64 years of age (AHRC, 2009, p.

6). This highlights a significant bias that benefits men in the current policy approach to retirement and represents a poverty trap for women in later life.

Not surprisingly then, disparity in income earnings also exist between Australian men and women for average weekly earnings with women earning an average weekly income of \$818.50, while the average weekly earnings for men is \$1, 281.00 (Australian Bureau of Statistics (ABS), 2012). This represents a difference of over \$460 each week in favour of men. Women also represent a much greater proportion than men in the lowest income groups, which is a pattern reversed for highest income groups, where men represent the greater proportion. According to the Australian Bureau of Statistics (ABS), women represent 20% of the population within the lowest income group compared to 15% of men (2008). For the highest income group, men represent 29% whereas women represent just 11% (ABS, 2008). These figures reveal the gendered nature of income earnings in Australia and highlight the disadvantage that exists for women in paid employment.

A further factor affecting Australian women is gender-based violence, including child sexual assault, workplace harassment, adult sexual assault, and domestic violence. According to a report produced under the auspices of the Australian Institute of Family Studies (Lamont, 2011) comparing national child protection figures, girls under the age of 18 years were more likely than boys to experience confirmed cases of sexual assault during 2009-2010. Statistics for three out of seven Australian jurisdictions revealed that girls were three times more likely than boys to experience confirmed cases of sexual assault (Lamont, 2011). Further to this, a study exploring the extent of sexual harassment in the workplace found that one in three women between the ages of 18 and 64 years experienced sexual harassment in their lifetime (AHRC, 2008). Additionally, in 2005, 17% of women over the age of 18 years experienced domestic violence by a partner at some stage in their life since they were 15 years of age (ABS, 2007). These statistics cause concern for the overall safety of women throughout their lifecycle, and highlight an imbalance of power between Australian men and women.

Women also experience legal barriers that inhibit gender equality. Among five recommendations made by the Australian Human Rights Commission (AHRC, 2010) in its *2010 Gender Equality Blueprint*, emphasis was given to the need to improve legislation that relates to gender equality. The report highlights the inadequacy of the Australian *Sex Discrimination Act 1984* in addressing systemic discrimination, and its failure to meet international legal obligations, such as, the Convention on all Forms of Discrimination against Women (CEDAW). The AHRC (2010) report also makes reference to the need for change to the Australian *Equal Opportunity for Women in the Workplace Act 1999* (EOWW), which is critical to addressing the inequality experienced by women in Australian workplaces, including income levels, sexual harassment, women's management, and discrimination.

These disparities reveal disturbing inequalities between women and men, and point to an urgent need for these imbalances to be redressed. Social justice, involving principles of equality and human rights, requires understanding of the implications of a gendered approach to policy development in order to achieve social and economic egalitarianism for women. The social work profession is committed to social justice and human rights and therefore has an imperative

to advocate for the equality of women through direct practice initiatives, advocacy for policy development, and social action.

Double Disadvantage: Women and Rurality

Women residing in rural Australia often encounter significant inequality due to factors relating to their geographical location and subsequent issues of isolation, lack of resources, and lack of access to services. According to the Australian Institute of Health and Welfare (AIHW, 2005), medical specialists are in short supply in rural areas, which contributes to poor health outcomes for rural women compared to urban women. Research by Mason (2008a, 2008b) that interviewed representatives of 74 rural women's services across Australia explored the challenges faced by service workers in meeting the needs of rural women. Outcomes of the study identified key issues affecting rural women such as: a lack of resources, lack of transport, limited access, privacy and safety, confidentiality, lack of funding, and lack of outreach services. The Australian Bureau of Statistics (ABS, 2004) found that Australian rural women have lower labour force participation rates, are more likely to be working part-time, and have lower educational qualifications than urban women. Rural women also face additional challenges in finding employment due to limited employment opportunities.

However, the disadvantage experienced by Australian rural women extends beyond demographical and geographical factors to include cultural and social aspects specific to rural lifestyle. Rurality in Australia is typically dominated by white men, who most often hold power through ownership of resources (Alston, 2010b). Pease (2010) emphasises the complexity of the social and cultural context of rural lifestyle and refers to several factors that disadvantage rural women, including: a more conservative social and political ideology, valuing of privacy for family issues, ambivalence towards outside intervention, a high profile of mateship among men, and more conservative perspectives on the role of women in the family. Similarly, a study conducted by Wendt and Cheers (2004) explored dominant discourses of rural lifestyle and identified religious values, the importance of family name and status, intergenerational property inheritance and wealth, importance of self-reliance, and impacts of cultural heritage as factors that impact on women. Hogg and Carrington (2006) also discussed the patriarchal structures that exist in rural areas and believed such structures are much stronger in rural areas than in urban areas. These traditional discourses of rural lifestyle are embedded in the social construction of rural life, and shape the distribution of power and biases towards rural men.

Review Process

A review of existing Australian literature relating to gender and climate change was sourced from journal articles, government and departmental reports, and welfare association reports. Search terms were used to identify relevant literature from journal databases and the internet, and included any combination of the following keywords: gender, women, female, and climate change, environment, rural, remote, and regional. A total of nine sources (Alston, 2006, 2007, 2010a; Alston & Kent, 2004, 2006; Alston & Mason, 2008a; Alston & Witney-Soanes, 2008; Stehlik, Gray, & Lawrence, 1999, 2000) were identified as specifically relating to the gendered nature of climate change in Australia, and consequently used for the purposes of this research. Four of these sources were research reports, and the remaining five were journal articles. Of the

five journal articles, four analysed data from the original four research reports, therefore five of the nine sources consisted of original research (four research reports plus one journal article).

Analysis

A thematic process of analysis was used to identify themes in the data gathered from the source literature. Ezzy (2002, p. 93) refers to the process of thematic analysis as including open coding, axial coding, and selective coding. This process begins with open exploration of data, the development of categories and codes for those categories, and the identification of a central theme that links the data to emergent theory. Open exploration of data occurred as part of this literature review when trying to locate relevant documents, for example, by using broad search terms in relevant data bases. The categories and codes were developed when commonalities and differences were found between the documents.

Limitations

Several issues are associated with the analysis of secondary or existing data for research, including contextual issues, validity, and timeliness (Alston & Bowles, 2012; Stewart & Kamins, 1993). Difficulties associated with analysing documents that are written for some other purpose include possible predisposition of the researcher to being unintentionally influenced when using data for purposes that do not parallel with the original intent of the report. The information obtained can therefore be inaccurate or invalid when applied to the alternative research purpose (Stewart & Kamins, 1993). To overcome this issue the researchers made every effort to honestly represent the work of other authors. Additionally, analysis processes used in qualitative research were systematic and involved accurate coding and constant re-checking in order to validate data.

Information prepared and gathered for reports usually have some specific intent, for example, to further the interests of a particular group. The contextual circumstances of the report, for example, the original audience for which the report was prepared, can therefore undermine the accuracy of data presented (Stewart & Kamins, 1993). These issues were taken into account in this study through the application of critical theory as part of the analysis process. Critical theory questions traditional ideology and provides alternative explanations for social issues through the examination of unequal power relationships (Fook, 2012; Healy, 2005; Payne, 2005). This approach encourages consideration of the structural issues and political nature of the reports in question, as well as the domination of powerful groups that might exist in the context of each document (Fook, 2012).

Another limitation to using secondary sources for research is the timeliness of the literature. That is, how old the literature is or how out-dated and therefore irrelevant the literature is at the time of analysis (Alston & Bowles, 2012). However, given the research topic is a recent phenomenon in social work practice, all documents considered were relevant and have been part of recent international debate and discussion.

An important ethical issue for conducting a literature review is ensuring the honest representation of the authored documents, so that data is not used inappropriately or for purposes that conflict with initial intent of the specific document. This means that documents were

analysed carefully, for example, the analysis of smaller subsets of much larger documents were considered in the context of overall conclusions.

Findings

Given Australia's recent experience of drought in the earliest part of the 21st century and in the 1990's, the review literature predominantly focused on the social impacts of drought in Australia. Of the nine review papers, eight specifically considered the effects of droughts. The exception source paper considered the gender composition of water boards and the lack of social value versus economic value placed on water as a commodity.

A key finding in the review literature was that rural women and men adapt to climatic events, such as, drought and water shortages, in different ways (Alston, 2006, 2007, 2010a; Alston & Kent, 2004, 2006; Alston & Witney-Soanes, 2008; Stehlik et al., 1999, 2000). The highly gendered response to climate variability primarily involved negative consequences for both women and men.

Increase in Workloads

During drought and water shortages the review literature revealed that rural women are more likely to have increased workloads on farms, for example, assisting with stock feeding and water carting (Alston, 2006, 2007, 2010a; Alston & Kent, 2004; Alston & Witney-Soanes, 2008; Stehlik et al., 1999, 2000). These extra tasks arise out of need for stock survival, and the woman's partner who is often primarily responsible for stock feeding cannot fulfil the task without assistance due to stock numbers and the intensity of the work involved.

Concomitantly, women are also more likely to obtain off-farm employment to obtain the cash flow needed to cover household expenses (Alston, 2006, 2007, 2010a; Alston & Kent, 2004; Alston & Witney-Soanes, 2008; Stehlik et al., 1999, 2000). During drought the quality of stock and crops fall along with commodity prices, and farm business income is often low or running at a loss. The off-farm work provided by women essentially enables the family to remain on the farm during the drought period. Alston and Kent (2004) conducted 120 interviews across three communities, and reported that 75% of women increased their work on the farm during drought and 50% of women had gained off-farm work for much needed income. Such off-farm employment is usually forced by circumstances, in that the women would not normally be seeking off-farm employment (Alston, 2007; Alston & Kent, 2004). Off-farm work often results in involuntary separation from the family due to relocation for employment (Alston, 2007; Alston & Kent, 2004).

In addition, off-farm employment often provides relatively insecure conditions, including part-time and casual work (Alston, 2007; Alston & Kent, 2004). Annual leave and holidays are usually taken during peak labour times on the farm, such as, harvest time and sheep shearing seasons, thus, allowing women to provide much-needed labour on the farm (Alston, 2010a). These somewhat excessive work conditions can cause significant impact on child-care arrangements and strain on family relationships (Alston, 2007). For women who do not obtain

off-farm employment, reduced contact with other women often occurs due to the out-migration of local women in search of off-farm employment.

The review literature also identified that women are also more likely to work up to an advanced age during drought in order to assist with increased workloads on farms (Alston, 2010a). Older women who might normally be retiring from physical farm labour find themselves having to assist with the increase in farm workload to ensure the farm is kept operating. Whilst on the one hand this phenomenon demonstrates the qualities of a strong family community who 'pull together when things get tough'; it also highlights a stretched community that is forced to draw from a particularly vulnerable group of older women.

The review literature identified that during drought and water shortages men are more likely to experience an increase in workload on the farm, for example, carting water, feeding stock, and general maintenance during drought periods (Alston, 2006, 2007; Alston & Kent, 2004; Alston & Witney-Soanes, 2008; Stehlik et al., 2000). This increase in workload greatly reduces time allowed for social interaction, whether with the family or wider farming community. This increase in workload inevitably reduces family cohesion and community networks, and causes social isolation for rural men (Alston, 2006, 2007, 2010a).

Negative Health Impacts

The review literature identified that women on farms are more likely to become the protectors of their male partner's health (Alston, 2010a; Alston & Kent, 2004; Alston & Witney-Soanes, 2008). Women tend to be aware of the strain their male partners are experiencing and undertake the carer role, for example, through ongoing emotional support, encouragement to socialise, and as one report identified by reducing exposure to negative media by turning the radio or television off (Alston, 2010a; Alston & Witney-Soanes, 2008). As a result of this, women tend to ignore their own health in order to care for that of their family's health (Alston, 2010a; Alston & Kent, 2004; Alston & Witney-Soanes, 2008).

One report identified the profound long-term effect on women who live through drought for extended periods, as undertaking community carer roles (Stehlik et al., 1999, 2000). Women often bear the burden of having to rebuild communities after losing community resources, skills, and relationships from families and services that have left. Alston (2010a) recognised this community work role along with other increased areas of work as preventing women from being able to tend to their own health needs.

Women also experience grief and loss over the dying landscape, especially their gardens which were identified in the review literature as being symbolic of health and growth (Alston, 2007; Alston & Kent, 2004; Stehlik et al., 1999, 2000). For many farm women, gardens provide spiritual meaning (Alston, 2006; Alston & Kent, 2004; Stehlik et al., 1999, 2000), and their loss comes at a great emotional cost.

Men experience grief and loss over the death of livestock and farm land, and the loss of their farming lifestyle. Daily exposure to death and a grim landscape provides a somewhat discouraging context for work, coupled with a fear of an unknown future career in farming

(Alston, 2010a; Alston & Witney-Soanes, 2008). Given the length of recent drought in Australia as enduring for approximately 10 years in some parts of the country, this is a considerable length of time for men to be confronted with ongoing stress, which to some extent is out of their control (Alston, 2010a; Alston & Witney-Soanes, 2008).

The review literature also identified that men feel blamed by the community view that farmers are somehow responsible for climate problems (Alston & Witney-Soanes, 2008). This feeling of being demonised by the community coupled with the threat to their future farming careers seriously threatens men's identity and masculinities as farmers (Alston, 2010a; Alston & Witney-Soanes, 2008). Men also experience increased isolation and loneliness, with the effect of many men withdrawing from social activities (Alston & Witney-Soanes, 2008). As a result, men were also identified as being at increased risk of developing mental health issues, including depression and suicide (Alston, 2010a; Alston & Witney-Soanes, 2008).

A Focus on Economics and Environment

Specific reference was made to the re-conceptualisation of water as a commodity involving the buying and selling of water allocations (Alston & Mason, 2008b). This places an economic worth on a natural resource, which has significant impact on the way water is perceived and valued. Changes in government perspectives of drought have also been altered from one of 'natural disaster' to 'business risk' (Stehlik et al., 1999). This has reduced the responsibility of governments to provide immediate financial relief as would occur for other natural disasters, such as, fire and floods, and harnesses a model of self-reliance and risk management where farmers are accountable for their own losses. Researchers highlighted their concerns that a sole focus on economic analysis and implications of climate change neglects the human factor relevant to climate change, including the social ramifications for rural families (Alston, 2007; Alston & Mason, 2008a). In particular, Alston and Mason (2008a) consider that a focus on the economic value of water excludes women from providing a more balanced view on the value of water. Women's strong links with community life make them more able to articulate the enhanced social interactions and sense of community that water provides through a range of family, leisure and sporting activities.

Decision Making

Decision making featured in the review literature as being a point of difference between men and women during climate variability. Relevant issues involved: the dominance of men holding positions on boards, men being the main decision makers in their relationship with farm women, and conversely, farming men losing political power to governments and corporations.

One particular study by Alston and Mason (2008a) identified that there is a distinct dominance of men holding positions on relevant climate change and agricultural boards, and in leadership positions. This dominance of men has served to marginalise rural women from relevant debate and decision-making processes. Alston and Mason (2008a) examined the gender composition of water boards in the Murray-Darling Basin and found that women take up less than 30 per cent of positions. The researchers argue that this provides a skewed perspective of

the meaning of water, neglects to recognise the varied experiences of women and men, and fails to carry the complete repertoire of issues to the water debate.

However, farming men were also identified in the review literature as having lost political power due to other key players, such as, governments and corporations, dominating food and water security policies (Alston, 2010a). As a result, farming men have limited input into the development of agriculture and their futures, which has reduced their control and added significantly to their health and welfare needs (Alston, 2010a). Nevertheless, despite the increasing politicisation and corporatisation of issues involving the environment and consequential reduced involvement of farming men, women remain under-represented at all levels of decision-making processes (Alston & Mason 2008a).

Another study examined women and decision making, and concluded that women do not perceive themselves as dominant decision makers in their relationship with farming men (Stehlik et al., 1999, 2000). Out of 21 women respondents none identified themselves as having made an important farm decision alone and none reported having taken a lead in the discussion preceding the decision being made; eighteen women reported being partly involved and three reported not being involved in the decision making at all. Alternatively, of the farm men partnering these women, 12 reported having made the decision or taking a lead in the discussion preceding the decision being made. The remaining nine reported being partly involved in the decision making (Stehlik et al., 1999, 2000). These outcomes reflect the patriarchal make-up of rural lifestyle, and indicate the comparative lack of power that women experience.

Points of Commonality

Whilst the literature mostly highlights the gendered differences in response to climate variability, there are some points of commonality worth mentioning. In general, the farm family experiences a significant increase in stress and health issues due to the strains from changed roles placed on family members (Alston, 2006, 2007, 2010a; Alston & Kent, 2004, 2006; Alston & Witney-Soanes, 2008; Stehlik et al., 1999). This can result in relationship issues and conflict within the family unit. A reduction in income increases farm debt and poverty, resulting in family members sacrificing leisure and other items they might normally purchase, such as, holidays and paid farm labour used during peak seasons (Alston & Kent, 2006; Alston & Witney-Soanes, 2008). In particular, reduced access to education opportunities for children is identified as being of major concern for both farm men and women (Alston & Kent, 2004, 2006; Stehlik et al., 1999).

The impact of drought on children was also identified as a common issue of concern for farm women and men. Alston and Kent (2004) highlighted the impact of drought on children as being under-reported and involving: an increase in farm work, increase in stress, social isolation, and lack of access to education (as mentioned). Likewise, Alston and Witney-Soanes (2008) refer to: increased anxiety, altered behaviour at school, reduced educational opportunities, withdrawing behaviours, and an increase in farm work. A later study by Alston and Kent (2006) identified issues experienced by children as involving: an awareness of reducing water use, increase in farm work, exposure to dying animals and landscape, an increase in off-farm work to pay for

farm expenses as well as their own expenses, reduced access to education, and reduced participation in leisure activities and school excursions.

Discussion

The literature reviewed in this paper provides compelling evidence of the gendered nature of responses to climatic events in rural Australia. Whilst it is not scientifically rigorous to attribute single climatic events to climate change, evidence is mounting that the frequency and intensity of extreme weather events across the world are indicative of climate change impacts (IPCC, 2007). Further to this trend, some climatologists in Australia have viewed recent drought, bushfire, and flood events as being associated with the impacts of climate change (Climate Commission, 2013; CSIRO & Australian Bureau of Meteorology, 2007; Garnaut, 2008). Given that the outcomes of these weather events have included large scale social and economic costs for families and communities, loss of life, loss of livelihood, and increased health and welfare issues, the role of social work in the emerging field of environmental or 'green' social work is becoming more relevant to the profession. In addition, changes to the 2010 version of the Australian Association of Social Workers (AASW) code of ethics now requires social workers to be active in the pursuit of a healthy 'natural' environment (p. 13). Social workers therefore have an ethical responsibility to promote social wellbeing through the development of sustainable policy and practice.

The literature review indicated that the response to climatic events, such as, drought and water shortages, has involved negative adaptations for both men and women in rural Australia, which undoubtedly causes significant strain on families and communities. Given the different experiences of rural men and women, it seems rational that the services provided to support rural families need to be responsive to these differences. This means there is an onus on services and welfare support to be affordable, culturally appropriate, and gender sensitive. Without knowledge of gender differences, services will be rurally inappropriate and under-accessed despite the growing need for support.

It must also be considered that rural women are adapting to climatic events in a social context that favours men. The patriarchal flavouring of rural communities means that women are challenged by double disadvantage, increasing women's vulnerability to adverse outcomes of climatic events. Recognition of the gendered adaptations rural women experience during major climatic events is required from proponents in the climate change arena; including government, lead decision making bodies, and welfare groups. However, women have limited access to the organisations and boards responsible for making decisions about the allocation of resources, and lack representation on relevant government and industry bodies, and this often serves to omit the views and perceptions of women in important decision-making processes (Alston, 2003; Alston & Wilkinson, 1998; Sheridan, Pini, & Conway, 2006). It is therefore of paramount importance that rural women are included in the climate change debate and decision-making process to ensure that women's perspectives and issues are represented and addressed at all levels of policy development.

Post-structural feminist theory provides a framework that highlights the unique experiences of Australian rural women adapting to climate change impacts. This anti-essentialist perspective

draws on ideas from Butler and Scott (1992) who explored the deleterious implications of assuming that all women share the same identity and experience. Whilst recognition of diversity amongst women can be criticised for weakening the political effectiveness of feminism, it also challenges dominant ideas within feminism that serve to conceal important differences amongst women, leaving significant disadvantage for particular sub-groups of women (Jones, 2003). Despite the fact that Australian women in general share many common points of disadvantage relating to income, health, and employment, women in rural areas identify with different challenges relating to aspects specific to rural lifestyle. In particular, the social impacts of climate change disadvantage rural women significantly and require distinct approaches for addressing these inequalities.

For men, the dominant masculine discourse that typically consists of strength, ruggedness, and stoicism serves to seriously disadvantage rural men in the face of adversity, such as drought. Connell (1995) refers to this hegemonic position of men as being a system of behaviours that presupposes men's concerns above that of women's, and enables men the ability to control women even at the family level. In a rural context decision making, land ownership, public dominance and the holding of leadership positions are key factors that contribute to the subordination of rural women (Alston, 2010b). While in good times this hegemonic position provides men with power, privilege, and prosperity, in difficult times it serves to restrain them from seeking assistance, which makes men particularly vulnerable to negative health outcomes, such as mental health problems. It is argued that a focus on deconstructing masculine hegemony, rather than dealing directly with health outcomes, will provide a more effective solution to men's declining health in the face of climate change impacts (Alston, 2012; Alston & Kent, 2008).

Social work theory adopts a central focus on the environmental context of clients' lives, which stems from a tradition of systems and ecological perspectives in practice (Healy, 2005; Payne, 2005). Although this environmental focus has traditionally focused on the socio-cultural environment and the interplay of social systems, many social work writers are now calling for an expanded view of the environment to include the physical environment (Besthorn & Canda, 2002; Coates, 2005; Jones, 2010; McKinnon, 2008). These writers argue that if the survival of humanity is at the heart of climate change then this is of central concern to social work. This makes the role of social work implicit in dealing with the impacts of climate change. Further, the domain of social work practice occurring at the micro, meso, and macro levels of society places social workers in a unique position to work with rural families and communities affected by climate change.

Fundamental to social worker involvement in climate change practice is a commitment to social work values espoused by the profession. According to the Australian Association of Social Workers (AASW, 2010), social justice is a core value concerned with power relations and inequalities between groups, including the social structures that preserve inequality. Social workers working with rural families have a responsibility to not only recognise the inequalities between men and women in general, but also the feminist implications for women in a rural context adapting to climate change. A key professional function for social workers in climate change practice is advocacy, which requires the development of opportunities for rural women to voice their concerns and participate in climate change discussions to influence social policy

developments. Social workers have a role to play in ensuring that rural women are included in public aspects of rural lifestyle, such as, membership on local councils, land care organisations, environmental groups, fire prevention planning, business initiatives, and other community groups. The representation of women in the public domain is crucial to bringing the needs of rural women to the forefront of climate change decision making and policy development, and to addressing the existing gender inequalities.

Conclusion

This paper identifies the gendered nature of climate change in rural Australia through a review of literature and acknowledges the negative experiences of both men and women. Although the available literature examining gender and climate change is relatively small, it is nevertheless timely to analyse the research trends and the findings of studies in this new field. A concerted effort is needed to recognise and address the gendered implications of climate change and thus avoid, or at least reduce, adverse social outcomes. Further, the implications for rural women are concerning given the structural disadvantage experienced by women in rural Australia, and the increasing risks posed to rural women as a result of the patriarchal context of rural lifestyle.

We found evidence in the literature for inequitable health outcomes for women as a result of climate change, along with a relatively powerless position for rural women in regard to decision making. This combination of factors indicates an area of special social need. Social work as a profession concerned with social justice issues is in a position to become more involved with climate change practice at the individual, group, and community levels of practice, and can assist women and communities to identify the social impacts of climate change and to develop more equitable responses.

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