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Climate Change Policies Review - Discussion Paper submissions
2017 Review Branch
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To Whom It May Concern

2017 REVIEW OF CLIMATE CHANGE POLICIES

The Australian Psychological Society (APS) welcomes the opportunity to make a submission relating to the Government's 2017 review of climate change policies. While it is beyond our scope to address all parts of the discussion paper, we have commented below on areas that are within our area of expertise. We also highlight two issues that we consider are key to successful climate policy, but which have not been included in the current discussion paper. First, we believe that the 'hard science' of climate change needs to sit alongside the contributions of psychology and other social sciences in improving science communications and bringing key sectors of the community into step with whatever policy measures are likely to be most effective. Significant and long-term reductions will only be achieved through policy change that is accompanied by changes in people's understanding, attitudes and behaviour at all levels of society. Second, we believe that the health impacts of climate change need to be factored in to all climate change policy. Despite the substantial body of scientific evidence highlighting these risks, and growing evidence that climate change represents a 'health emergency', human health has not been afforded sufficient priority in Australia's climate change policy and strategy actions. These points are both addressed in the relevant sections below.

Australia's Paris target

What factors should be considered in this process of considering a potential long-term emissions reduction goal for Australia beyond 2030?

The APS considers it is of utmost importance that the Government develops climate change policies which enable us to meet Australia's commitments under the Paris Agreement and which work to keep warming to under 2 degrees, and preferably below 1.5 degrees.

It is in Australia's national and global interest to reduce greenhouse gas emissions. Climate change is an impending human and biospheric disaster, and Australia is a country and a region that is extremely vulnerable to the impacts of a warming, unstable climate. As well as having devastating environmental and economic impacts, climate change is already having,

and will continue to have, a significant negative impact on people's health. It is widely regarded as the biggest health threat of the 21st century (Lancet, 2015; Costello et al., 2009). The risk of a 2 degree temperature rise clearly threatens the stable and safe climate that the current and earlier generations have experienced, and takes future generations into the realm of a climate unknown in human civilisation (Hansen & Sato, 2011). There will be manifestly greater impacts and consequences over time.

Climate change also impacts on people's mental health and psychosocial wellbeing (Clayton et al., 2017). There is a significant risk of mental health problems following extreme weather events that are more frequent and intense with climate change, as well as psychosocial stress associated with environmental damage and concern about climate change. There are also psychological impacts caused by climate change's more gradual impacts on the environment, human systems and infrastructure that flow on to affect food security, economic wellbeing, family wellbeing, community health. These changes are happening now, and are almost certain to increase as the impacts of climate change become more obvious and ubiquitous. It is these present impacts and adaptation and coping challenges that are very appreciably influencing not only health and well-being but psychological adaptation and coping success.

The factors which should therefore be considered in the process of considering a potential long-term emissions reduction goal for Australia beyond 2030 is evidence of risks to human health and wellbeing, amongst other factors. Emissions reductions targets should be driven by evidence of the risks of climate change to human health and social cohesion, as well as to food and water security, national security, environmental values including biodiversity, infrastructure and settlements, and the economy both in Australia and globally, as well as recognition of the benefits to all of the above from emission reductions.

Meeting Australia's Paris commitments and achieving the global goal of net-zero greenhouse gas emissions in the second-half of this century, as well as mitigating the risks to human health, will require greatly increased ambition and targets in Australia's climate policy. The Australian Climate Change Authority (CCA), created by the Government, recommends a national target of between 40 to 60% of emission reductions below 2000 levels by 2030 (Climate Change Authority, 2014). This will require deep and rapid cuts in greenhouse gas emissions, and a speedy transition away from fossil fuels towards renewable energy sources. This is achievable, responsible and economic (Beyond Zero Emissions, 2017), and necessary in order to reduce unacceptable risks to human health from climate change.

As the Climate Change Authority also states, "it is clearly in Australia's interest to persuade and encourage other nations to strengthen their contributions to international action. Australia is likely to be more persuasive and encouraging if its own goals are viewed as a fair contribution by others."

What are the issues in the transition to a lower emissions economy with respect to households (including low income and vulnerable households), jobs and regional Australia?

Australia's climate policy should also be just, equitable and fair. It should protect the most vulnerable individuals and avoid disproportionate impacts on vulnerable people, low income households and the organisations that support them. Low income earners tend to live in areas more likely to be adversely affected by climate change, and have far less ability to

move or make other necessary adjustments to their living circumstances, spend a greater proportion of their total weekly household budget on energy and water than wealthier households, and are less able to afford energy efficiency measures.

There are many ways in which climate policy can be developed in order to be just, equitable and fair. This can be done in the form of assistance subsidies for low income household energy efficiency programs, efforts to build resilience in communities and community organisations in the face of extreme weather disasters, and measures to increase energy affordability for disadvantaged households.

Australia's climate policy should also assist the successful transition of communities that are especially vulnerable to economic shocks or physical risks as a result of climate change or climate policy, like regional communities impacted by the closure of coal mines or large scale fossil fuel energy generators. Phased closures that anticipate the negative impacts on the psychosocial wellbeing of workers and communities and plan strategies to mitigate these risks and support communities through the transition are critically important. As well as sectoral incentives and subsidies, policies that can assist in fair transitions for these communities are those that are place-based, grounded in local conditions and opportunities, and that focuses on the empowerment and competitiveness of the local area (OECD, 2012).

Sectoral analysis

The health sector: Are there any implications for policy?

The Discussion Paper lists several sectors for analysis, although not the health sector, which is of great relevance to the Australian Psychological Society. We will limit our comments below to overall comments about climate policy sectoral analysis, and then provide some specific comments about the health sector which we believe needs to be included in Australia's overall climate policy.

For Australia to meet its Paris Agreement obligations and to protect health, it will need to develop a whole-of-government approach that ensures climate change policies are integrated across all areas, from health and social services, to energy and agriculture, transport, housing, immigration. Furthermore, all climate policy should be considered under a health lens. Climate change poses significant immediate and long-term risks to the health of Australians. Despite the substantial body of scientific evidence highlighting these risks, and growing evidence that climate change represents a 'health emergency', human health has not been afforded sufficient priority in Australia's climate change policy and strategy actions. The National Climate Resilience and Adaptation Strategy, published by the Commonwealth Government, highlights that all levels of government share responsibility in responding to the challenge that climate change presents to health and well-being. However we do not yet have any national programs specifically targeting this area. Australia's health sector is underprepared to deal with the health risks associated with climate change. A recent global survey reveals that Australia lags behind comparable countries when it comes to protecting the health of its citizens from climate change (World Federation of Public Health Associations, 2015).

So as well as driving the emission reduction targets, the importance of human health and wellbeing should also therefore be key considerations in the development of climate policies.

The Climate and Health Alliance, of which the APS is a founding member, has developed a Discussion Paper on a National Strategy for Climate, Health and Well-being. The framework presents six key action areas to protect health and wellbeing through climate mitigation and adaptation policies http://caha.org.au/wp-content/uploads/2016/06/CAHA-Discussion-Paper-v04.pdf. All dimensions of climate change are intrinsically linked, and action to reduce the health risks from climate change requires working across all policy areas and sectors to consider the health impact of their policies and practices. This is best captured through a Health-in-All-Policies approach (CAHA, 2016).

Australia's climate policy can realise significant health co-benefits. Just as health is essential to planning and assessing effective climate policy, better health will be an outcome of effective climate change policies. There is a substantial body of evidence highlighting the potential for health 'co-benefits', i.e. avoided ill-health and productivity gains, associated with climate change policies to reduce greenhouse gas emissions, specifically in the sectors of household energy, food and agriculture, transportation and electricity generation (Haines et al., 2009). An evaluation of the health co-benefits of various climate change mitigation policies for four European cities (Creutzig et al., 2012) found that such policies could improve air quality, reduce noise, decrease traffic-related injuries and deaths, increase levels of physical activity, decrease congestion, and provide fuel cost savings. Given the potential for co-benefits (and potential risk of unintended adverse health outcomes) associated with climate mitigation and adaptation strategies (Smith et al., 2014), comprehensive assessment of both the positive and negative health impacts of climate change policies is recommended.

The health co-benefits associated with emissions reduction strategies offer extraordinary value in terms of the benefit:cost ratio. The financial savings associated with avoided ill-health and productivity gains can outstrip the costs of implementation if strategies are carefully designed (CAHA, 2016).

The health sector also needs to be considered in terms of potential for emission reductions as well as support to become a climate resilient health sector. Whilst the health sector does not make as large a contribution to Australia's emissions as other sectors like agriculture or transport, there is still great scope for the health sector to reduce its emissions and make a significant contribution to overall emission reductions in Australia.

Sector-specific incentives are necessary to capitalise on health sector emission reductions, like support for energy efficiency measures in healthcare infrastructure and buildings, low carbon initiatives in health care services and programs to encourage environmental sustainability, and obliging health services to reduce emissions at all stages through manufacture, transportation, and procurement of health care related materials.

Climate policy also has implications for the resilience of the health sector. The health sector comprises many health and community organisations supporting vulnerable and disadvantaged people, and is also a sector which is hardest hit by climate change related extreme weather events and disasters due to increased demand for services. Climate policy needs to be developed that supports health and community organisations to prepare adequately for future impacts, as well as affording protections for people hit hardest by direct and flow-on climate change impacts (as discussed in the previous section).

Research, development, innovation and technology

What is the role of research, development, innovation and technology in reducing Australia's emissions? Are there any implications for policy?

Are there particular opportunities that should be considered in relation to research, development, innovation and technology?

While we agree that innovation is central to meeting the ambition of the Paris Agreement, and that an unprecedented transformation will be required worldwide, through deployment of low-emissions technologies, it is also widely accepted that technological developments alone will not achieve the carbon emission reductions in Australia required to meet the Paris Agreement and necessary to restore a safe climate. Significant and long-term reductions will only be achieved at organisational, institutional, household and individual levels through policy change that is accompanied by changes in people's understanding, attitudes and behaviour at all levels of society.

There is thus a critical need for further social science research into understanding and changing people's attitudes and behaviour around climate change and sustainability issues. This not just about fostering pro-environmental behaviours and lifestyles (e.g., McKenzie-Mohr & Smith, 2006), but an equally important and integral emphasis is needed on issue engagement and psychologically, along with environmentally significant actions and behaviours in response to climate change (e.g., Whitmarsh, O'Neill & Lorenzoni, 2011; Reser, Morrissey & Ellul, 2011).

Limiting warming to below 1.5^{o}c will require fundamental changes in behaviour and lifestyle that will only be possible if people understand and take collective responsibility for reducing energy consumption in the light of climate change issues as well as changes in the supply and security of different energy sources. This requires active engagement with the public.

Social and behavioural science can contribute enormously to understanding how people respond to and engage with climate policies and adopt different behaviours as the world moves towards a zero emissions economy. The Australian Psychological Society's (2017) publication 'The Climate Change Empowerment Handbook' illustrates many of the psychological insights that can assist people to adopt sustainable practices and take effect climate change action. (See also Appendix A for examples, taken from the APS submission to the Inquiry into the Paris Agreement.

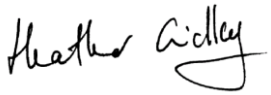
Conclusion

The APS welcomes the 2017 Climate Change Policy Review as a critical opportunity for the Government to develop strong climate policies that can move Australia rapidly onto an emissions reduction trajectory that is in line with the science of limiting temperature increase to below 1.5^{o}C. Effective climate change policy needs to be genuine in rapidly reducing greenhouse gas emissions and transitioning Australia to a zero carbon economy by the second half of the century, AND also needs to factor in the real costs of relevant issues such as health and the impacts on the community. The effectiveness of policies can be enhanced by the use of behavioural and social science expertise to assist with the

public engagement of people across all levels of society to change their behaviour and lifestyle in order to reduce emissions and restore a safe climate.

For further information please contact me on 03 8662 3327.

Yours sincerely,



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About the Australian Psychological Society
The APS is the premier professional association for psychologists in Australia, representing more than 22,000 members. Psychology is a discipline that systematically addresses the many facets of human experience and functioning at individual, family and societal levels. Psychology covers many highly specialised areas, but all psychologists share foundational training in human development and the constructs of healthy functioning.

A number of convergent areas of psychological work and practice have focused on the challenges of global environmental change and global climate change for the past few decades. Environmental psychology, social psychology, health psychology, clinical psychology, disaster psychology, community psychology, and organisational psychology have made key contributions in addressing the human dimensions of climate change.

The APS has a Climate Change and Environmental Threats Reference Group comprised of psychological experts in environmental and social psychology. In addition to a thorough understanding of human behaviour, our members have expertise in adaptation, disaster preparedness, barriers to behaviour change, resilience, the built environment, conservation of wilderness heritage areas, waste and recycling, media representations of environmental threats, risk perception and communication, stress and coping, and ongoing environmental stress, amongst other interests.

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Appendix A.

Extract from APS Submission to the Inquiry into the Paris Agreement.

Social and behavioural science can contribute enormously to understanding how people respond to and engage with climate policies and adopt different behaviours as the world moves towards a zero emissions economy.

For example:

1) Identifying barriers that get in the way of helping people to develop more pro-environmental behaviours, then finding ways of removing barriers in order to make a desired behaviour easier to perform:
   - Offering people a roof clearance service (that they actually had to pay extra for) at the same time as offering subsidies for roof insulation was three times more successful at getting people to insulate their roofs than the subsidised insulation alone (Halpern, 2015).
   - Many people are reluctant to swap their car for a bike as a way of getting to work because they are worried about their personal safety or theft of their bikes. Removing some of these barriers through dedicated bike lanes, and offering safe bike storage at workplaces, can make it easier for people to choose to cycle to work.

2) Identifying incentives that encourage people to develop more pro-environmental behaviours like choosing active or public transport, reducing air travel in organisations.
   - Public transport programs based on behavioural insights have been introduced into organisations to incentivise increased public transport usage and decrease car use. For a nominal yearly fee businesses were able to offer free or reduced cost public transport to employees which included a guaranteed free taxi ride home if they had to work late or in an emergency. This aspect was designed to both mitigate the concerns (barriers) about the availability of public transport in unforeseen circumstances which were identified during public consultation as well as provide incentives. http://www.toolsofchange.com/en/case-studies/detail/10

3) Understanding cognitive biases that influence how people behave. Much of human behaviour relies on people taking mental shortcuts or heuristics, so understanding these shortcuts, and designing programs around how people generally think and behave can greatly increases uptake of the desired behaviour.
   - People's behaviour is largely driven by entrenched habits. However there are particular times when people are more open to the suggestion of alternative options. For example, moving house is a time when people are more open to suggested alternatives to driving to work, before their new habits have formed.
   - Another example of a timely intervention is providing information to consumers just before the moment of purchase. Most people would rather buy appliances that use less energy and cost less to run. When labels have information comparing energy efficiency and likely running cost over the

product's lifespan, people tend to buy slightly more expensive but more energy efficient products (Halpern, 2015).
- Furthermore, when the information provided is easy to understand and attractive (i.e. attracts their attention *and* is seen as desirable), this increases uptake even more.
- People are more sensitive to the prospect of losing something than to the prospect of saving something of equal value (Yates, 1982). People were much more willing to insulate their water heaters when they were presented the information in terms of how much money would be wasted by not insulating, that when the information was presented in terms of how much money could be saved.

4) Understanding social norms and their influence on people's behaviour.
- When it comes to persuading people to conserve energy, the message that 'everybody else is doing it' works better than trying to appeal to people's sense of responsibility, desire to save money, or even their hope of safeguarding future generations. When people are given feedback about the average energy consumption of their neighbours, they tend to adjust their own energy use to conform to the group norm (Nolan, Schultz, Cialdini, & Griskevicius, 2008).
- Social norms have a particularly strong impact on recipients under conditions of uncertainty - they look outside, to others, for evidence of how to act. So when a new green product is introduced, or a new report on depletion of environment, or new laws related to pro-environmental action, the unfamiliar conditions will make people especially attentive and responsive to information about how others are dealing with it. This also means that leaders lose great persuasive leverage if they fail to marshal and employ such information in their communications precisely at these times.
- People are around 8 times more likely to litter when the environment that they are in is already littered, than in a clean environment (See http://www.communitychange.com.au/ for many more examples of how to change littering behaviour).

5) Designing and implementing effective, persuasive communications, media coverage, and educational materials concerning environmental problems and what can be done about them.
- A large literature in risk communication shows that people are more likely to heed risks they see as relevant, personal and salient, so linking climate change to things they care about, like health or security is important, and showing them that the threats are 'here and now' is more likely to be effective (e.g., CRED, 2014).
- Using trusted communicators to talk about climate change. Most people value and highly respect the views of scientists and academics, while having very little faith in journalists or politicians; People are also likely to listen to and be influenced by the views of people they know and trust and they feel are like them, so finding local communicators can be effective too (Marshall, 2015).

6) Understanding the complex emotions and reactions that people experience when faced with serious environmental threats.

- People can feel anxious, distressed, helpless, pessimistic, guilty, angry, and stressed, amongst other feelings (Clayton et al., 2014). How people respond to these feelings is thus very important. People can react in many unhelpful ways –minimise the threat, distract themselves, blame the authorities for the disaster, put faith in silver bullet solutions, put the onus on others like the government or other countries to solve the problem, or become helpless, hopeless, and resigned to the disaster. Knowing how people are feeling and responding, and finding ways of helping them to manage these feelings means that they can then properly accept the reality of climate change and not avoid it. Psychologists call this a skill of self-regulation and it is an important part of climate adaptation and coping.

7) Developing theories on disaster preparedness and response, and educating the public on the best ways to physically and psychologically prepare for extreme weather events.
   - Psychological research shows that the best disaster preparedness messages are those that provide clear, concise and truthful communications, specific guidance, through multiple media, across different, linked, trusted organisations and across time, with continual repetition of key preparedness messages.
   - Teaching people psychological preparedness (how to anticipate and identify their thoughts and feelings in a disaster pending situation, and practice strategies for managing their anxiety) can help people to stay calmer, more in control, and make better decisions about staying safe in an extreme weather disaster (Morrissey & Reser, 2003).

The USA's Obama administration has already been using psychological science in its climate change policies, having set up a Social and Behavioural Sciences Team that assists with climate-related projects as well as advising on other policies. The British Government also established a Behavioural Insights Team (BIT, or 'Nudge Team') under David Cameron's leadership, which, since 2010, has been helping government to identify the best ways to encourage people to adopt new behaviours that can save lives, promote health, save the government money, and improve community wellbeing (Halpern, 2015). The BIT unit uses psychological insights to help design policy and programs using a simple tool called the EAST framework to help prompt changes in people's behaviour: If you want to encourage a behaviour, you should think about making it *Easy, Attractive, Social and Timely*. The British Government's BIT unit has been an enormous success. Designing policy around behavioural insights has led to better outcomes and easier services for the public to use, and has also saved money.

There exist five decades of social science research addressing the relative efficacy of differing intervention strategies and government policies to do with engaging and influencing the public on sustainability issues (e.g., Steg & Vlek, 2009; Swim et al., 2011). Incorporating behavioural and social science expertise in Australia's climate policy and other public policy-making is a valuable way of improving the efficiency and effectiveness of government and critically important for helping Australia reduce carbon emissions, meet our NDCs, and play our art in restoring a safe climate.