Subject: Submission to Extreme Weather Inquiry

We are bushcare volunteers and bushwalkers living in the Illawarra region of NSW. We are extremely concerned by the impacts of climate change on Australia and believe that Australia, like may other countries, is not taking sufficient action to mitigate, manage or adapt to climate changes that are likely to be devastating to this country's human population and to its overall ecology.

In our area the impacts of climate change would appear to be evident already, with scientists recently confirming an established warming and drying trend across south-eastern Australia over the last fifteen years, topped off with record maximum temperatures recorded in Sydney and the Illawarra (over 45 degrees C) on Friday 18 January 2013. One long drought just ended in 2010, and while drought has not formally been declared again as yet, the four months to December 2012 were the warmest on record and were combined with with very low rainfall for the first half of a neutral year (i.e. neither El Nino nor La Nina). 2012 itself was the warmest La Nina year on record (http://thinkprogress.org/climate/2013/01/15/1452471/noaa-nasa-2012-warmest-la-nina-year-on-record-sustaining-long-term-climate-warming-trend/).
We are seeing plants adapted to moister climates (rainforest species particularly) suffering throughout the Illawarra.

Urgent policy and other action is now needed in Australia, as across the world, so that we can all do our bit to stop greenhouse gas emissions. Despite the commendable step of introducing an Australian carbon trading scheme, despite intense opposition from several quarters, there is much more that the Government of Australia can and should be doing. For example, the general consensus is that a carbon price below around $100/ton is likely at best to lead to a transition from burning coal to burning gas - and gas, while generally cleaner than coal - is still a fossil fuel, whose use will slow but not stop the already catastophic rate of climate change. Additionally, evidence from the US National Oceanographic and Atmospheric Administration (NOAA) indicates that at least some sources of unconventional gas have fugitive emissions of around 9% of the total, making such sources potentially much more carbon polluting than coal.(http://thinkprogress.org/climate/2013/01/02/1388021/bridge-to-nowhere-noaa-confirms-high-methane-leakage-rate-up-to-9-from-gas-fields-gutting-climate-benefit/).

Another step that should be taken, and on which Australia has already committed to act but has not yet acted, is to remove subsidies to fossil fuels, estimated as over $7 billion dollars a year in Australia by the Australian Conservation Foundation. The largest single subsidy is the fuel tax credits scheme, which is estimated to be worth over $2 billion per year and costs Australian households much more than the price recently put on carbon (www.acfonline.org.au/fossil-fuel-subsidies/). There is no reason to subsidise energy sources for mature energy technologies, and doing so for mature fossil fuel technologies should simply be stopped, as to continue doing so is in effect to subsidese the acceleration of climate change and increase the likelihood of extreme weather events.

As the majority (over 80%) of profits from mining in Australia go overseas, mining is a very small employer (estimated to be around 2% of all employees), and mining makes up around 11 percent of GDP, it is unlikely that even major cutbacks in such subsidies would be economically disastrous for Australia. (See The Australia Institute's report 'Mining the truth: the rhetoric and reality of the commodities boom', http://www.tai.org.au/?q=node/384). In this context it is also worth noting that mining employs a high proportion of the many non-Australian workers engaged on '457' visas, and that the elevated Australian dollar partly caused by the mining boom is reducing profitability

for other sectors, particularly but not only manufacturing.

More broadly, we believe that the policy settings in Australia in regard to mitigating climate change are confused: comprising both efforts to reduce carbon pollution through the price on carbon and an energy white paper that is predicated on increasing export of fossil fuels. Scientists are agreed that the world as a whole needs to drastically cut back to zero or close to zero emissions: such a scenario is frankly incompatible with one in which a large proportion of Australia's confirmed coal and natural gas are consumed, whether here in Australia or in any other country. To help mitigate against extreme weather, Australia's energy policy needs to move away from the focus on exporting fossil fuels, and focus on the development and deployment (in this country and overseas) of renewable technologies. Plans such as those developed by Beyond Zero Emissions and the University of New South Wales need to be taken seriously, and the vested interests of current power supply arrangements need to be challenged.

The stop-start nature of funding/subsidies, and repeated changes to policies at various levels of government, to renewable technologies is also highly problematic, and has resulted in a series of boom-bust cycles for some technologies (particularly wind and solar). The negative impact of state policies is also clear, with changes to rules on wind farm location being disastrous for wind in Victoria. While there is evidence that market based mechanisms are more effective than subsidies to increase the proportion of renewable energy, in the absence of a carbon price high enough to shift production decisively to renewable sources of energy, clear and consistent subsidies are preferable (such as the German approach, which combines a national feed-in tariff with a requirement that power utilities not deny renewable energy producers a power purchase agreement).

In terms of increasing Australia's preparedness, energy policy also seems to be lacking: with the appearance of more affordable decentralised stationary energy systems (e.g. micro-grids and off-grid solutions deploying a range of renewable energy sources), which are already cost effective in a range of remote and fire-affected contexts, energy policy should be focusing on decentralised energy rather than the vulnerable mega-grids that we have at present. Today, most of the houses that have their own solar panels and are largely self-sufficient in energy are vulnerable to disruptions to the grid, and so could not provide power to the household in case of a disruption to supply.

At the state government level, disinvestment in fire services, parks and wildlife services and SES need to be turned around: we are going to need more of these rather than less. Quarantine functions need to be oriented towards environmental weeds at least as much as agricultural weeds: gamba grass is a devastating environmental weed that was allowed in because it was useful in some agricultural contexts, but it is now doing enormous environmental damage in the 'Top End' because it burns so fiercly it can destroy previously resilient trees. Use of a comprehensive environmental risk assessment could prevent weeds like gamba grass from being imported in future and thus exacerbating fire risk.

Local governments are doing some great work in preparedness, encouraging local self-sufficiency through courses on food growing and home DIY. These are very important but don't reach nearly the number of people they need to reach: they are often under-resourced and do not have recurrent funding allocations. In any case, they are only one part of the picture.

Transport is another area where Australia is not well prepared for climate change. We have a freight transport system that is overwhelmingly geared to use of highly polluting trucks (with no maximum pollution standard specified for some categories of truck), and a long-distance passenger transport system that uses aeroplanes where high speed trains would be much more efficient. Both of these need to change rapidly.

Efficiency and durability standards for consumer products, from whitegoods to cars to houses, need to be substantially tightened. National energy efficiency standards for all these categories need to be introduced, following a system like that used in Japan where regular increases in efficiency are specified in advance so that producers can plan and innovate to meet them. Durability standards are also essential: what is the point of buying a more energy efficient fridge if it only last five years and the energy embodied in its manufacture is large?

Australia needs to fundamentally reorient itself towards a low-energy future, and away from the extraction and use of fossil fuels. This is essential: it may be very costly to do, but as the Stern Report pointed out in the UK, the costs of moving now are much, much lower than waiting and adapting later. The longer we wait, the higher the costs for absolutely everbody.

Emma Rooksby