Dear Secretary of Senate Select Committee,

Climate change is the single greatest challenge to sustainable life on earth and threatens to severely impact on social cohesion, peace and equitable distribution of earth's limited natural resources over coming decades. Wealthy western countries, including Australia, are mainly responsible for the build-up of the carbon dioxide and other pollutants in the atmosphere over the past two centuries, and for the continuing build up of these gases. Over this period, in these wealthy countries have developed a high standard of living and become very affluent and because they are mainly responsible for the environmental crisis, they must take the lead in reducing existing levels of GHG.

Changes in many key parameters, including global mean surface temperature, sea-level rise, polar ice cover and dynamics, ocean acidification, and extreme climatic events illustrate the impact that climate change is having on our world. There is a significant risk that many of these trends will accelerate, leading to an increasing risk of abrupt or irreversible climatic shifts and the most recent scientific results suggest that a rise of 4 C by the end of the century is highly likely – indeed, possibly inescapable. Temperature rises above 2 C will be very difficult for contemporary societies to cope with, and will increase the level of social unrest as people fight for survival in an increasingly hostile environment. A 4 C rise would have a disastrous outcome for life on this world as we know it.

It is generally recognized that all societies are highly vulnerable to even modest levels of climate change. However, I am particularly concerned about the well-being of those least able to cope with the impacts of climate change – the poor, the elderly and the very young, and struggling communities in developing countries. The poor nations and communities, who did not contribute to the current crisis are particularly at risk. Already they are suffering from the impacts of climate change, including increasingly severe droughts, crop failures, increasingly erratic weather patterns and the spread of heat-related diseases whilst those living in low-lying coastal areas or islands are preparing to flee their homes as sea levels rise and storms become increasingly violent.

It is clear, therefore, that rapid, sustained, and effective mitigation based on coordinated global and regional action is required to avoid "dangerous climate change and the most recent scientific results indicate that we must reduce our emissions by at least 40% by 2020 and aim for a decrease in GHG to 60 - 80% of 1990 levels by 2050. I believe it is our moral responsibility to do all we can to tackle the causes of climate change and do all in our power to help those less able to deal with the changes to their environment. We already have the tools to deal effectively with the climate change challenge – the technology, the economic structures, and managerial skills – and furthermore we can afford to act appropriately. However, in order to succeed, innovative leadership in government, the private sector and civil society will be essential and every member of society must also be involved in the transition to practices that foster sustainability.

The Federal Government has recently introduced its "Carbon Pollution Reduction Scheme", including the provision for "Emissions Trading", as the principal means of reducing our greenhouse gas emissions. However, there are significant and fundamental problems with the CPRS in its present form and considerable modifications should be considered. First of all, the Intergovernmental Panel on Climate Change Report in 2007 indicated that by 2020 developed countries as a group need to reduce their emissions by between 25 per cent and 40 per cent below 1990 levels, to help keep global greenhouse gas concentrations below 450ppm. A recent Report from the Australian Government Parliament's Treaties Committee (19.03.2009) also states that "it is in Australia's interests to get global action delivering deep cuts in carbon emissions in order to stabilise greenhouse gases in the atmosphere at 450 parts per million or lower by 2050." Although this has been generally accepted as a "safe" level of

GHG in the atmosphere, scientists now believe this figure should be reduced to 380 ppm. There is no question that the CPRS proposal of a 5-15% reduction in GHG by 2020 is far too low, especially if Australia hopes to be in a strong negotiating position at the December meeting in Copenhagen and be seen as a "Leader" in the debate on climate change. Secondly, the ETS ensures very generous compensation for "carbon intensive industries" which generate large volumes of GHG, i.e. the largest polluters, which include the coal – fired power stations, cement and aluminium production. On the other hand, within this document there is little support for improved energy efficiency or renewable energy technology, although it does include limited subsidies for home insulation and/or solar hot water installations and compensation to low income families affected by price increases. The Government is a firm supporter of "clean coal technology" and "geo-sequestration" i.e. burying the carbon dioxide generated by coal fired power stations or other industries in appropriate geological strata deep underground – so-called "carbon capture and storage" (CCS). There are plans for construction of small scale demonstration CCS plants in several countries, but experts believe this technology will not be generally available and commercially viable for two decades at least and will, furthermore, be very expensive. However, we have to start reducing our GHG NOW and not wait 20 or more years for new technology to become available. The carbon intensive industries, especially the coal-fired power stations have known for years that they must significantly reduce their emissions, but have achieved little. They could have modified their power plants to use gas as their fuel source – Australia has abundant sources of natural gas and this change would have resulted in much lower emissions

The CPRS also includes a loophole which enables Australia to "export" our emission obligations by buying cheap credits from developing countries such as Indonesia and PNG, in return for which these countries are expected to preserve designated areas of their tropical rainforests long term. These forests are important carbon sinks, but are widely exploited by wealthy foreign entrepreneurs who sell the valuable timber and then replace the forest with plantations of palm oil trees, from which oil for the lucrative bio-fuel market is obtained. However, it is very difficult to ensure that the forested area "paid for" in the emission credit trade is really protected and left undisturbed and there are moves to discontinue this very questionable – really unethical – practice. As things stand at the present time Australia could continue with "business as usual" and even INCREASE its emissions through this ruse. It certainly removes all pressure on the Government to enforce GHG reduction by introduction of low or zero emission technology for energy generation or by mandatory energy efficiency regulations.

Agriculture will not be included in the CPRS initially – this is of concern because this industry is responsible for about 17% of our GHG emissions although it must be acknowledged that there are practical problems in assessing its contribution. Agriculture deserves close attention because appropriate working of the soil and, in particular, incorporation of bio-char (carbon black) into the tilled ground can result in uptake of carbon dioxide from the atmosphere i.e. create a natural and highly effective "carbon sink". On the other hand, it should be noted that agriculture uses up to 70% of our available water, much of which is exported in food products as "virtual water".

Mr Rudd has said that climate change is "the greatest moral issue of our generation" but the CPRS as it stands does not seem to fit this mould. Furthermore, Australia exports 4/5 of the coal that we mine – an extremely valuable export industry. Coal may be responsible for less than ½ of our GHG, but we are exporting an awful lot of potential carbon emissions to other

countries at great profit! Other countries have introduced an emission trading scheme but so far they have been plagued with difficulties and have had little impact on reducing the greenhouse gas emissions within any specific trading country. As already mentioned, the same problem would occur in Australia – it would be possible for Australia to buy sufficient "emission credits" in developing countries to avoid having to do anything about the emissions from our highly polluting coal-fired power stations. There is, therefore, a strong case for serious consideration of a carbon tax which can be directly applied to the point of greenhouse gas emission. It could be relatively low when introduced, but then rapidly raised in subsequent years. All the tax should be applied to development of low/zero emission energy-generating technology and improved energy efficiency, although appropriate provision should be made for assistance for people in the low income bracket.

I appreciate the opportunity to have a say in the Senate Inquiry. Australia must do its fair share to prevent catastrophic climate change. It is the responsibility of every person who enjoys the privileged lifestyle that Australia has to offer to do all they can to protect the poor and vulnerable communities in this world from the disastrous impacts of climate change.

Yours sincerely, Patricia Phair