## Why we should sign the Kyoto Protocol

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Greenhouse gas emissions are changing the global climate. The average temperature is now about 0.7 degrees higher than it was 100 years ago and there have been significant changes in rainfall patterns. The scientific analysis of the changes and the role of human emissions of greenhouse gases has steadily become more confident, until the Third Assessment Report of the Inter-governmental Panel on Climate Change concluded that "most of the warming observed over the last 50 years is attributable to human activity". The modelling in the Third Assessment Report shows that the smallest increase in temperature predicted, on the most optimistic scenario of fossil fuel use reduction and the most cautious interpretation of the science, is a further 1.5 degrees by the end of this century, with associated changes in rainfall and sea level, as well as the frequency and severity of extreme events. Other, more likely, scenarios of fuel use and other interpretations of the scientific uncertainty predict much larger increases in temperature and more severe changes in other areas. The IPCC also warn that the climate system is complex, so we cannot rule out surprises. The Global Change Science Conference in Amsterdam last year warned that many of the parameters of the Earth's natural systems are now outside the range of previous human experience, making it quite possible that we could see serious disruption. Action has been forced by recognition of the economic and social consequences of the climate changes being projected. The Kyoto conference saw recognition by leaders of the world community that climate change demands concerted political action. We should sign the Kyoto agreement so we play our part as responsible members of the world community to avert the sort of disastrous outcomes that are being predicted.

Under the Kyoto agreement the developed world as a whole, which has been responsible for about 80 per cent of the human production of greenhouse gases from fossil fuels, is obliged to reduce emissions to 95 per cent of the 1990 level by the 2008-2012 period. Australia is required to limit its emissions for that period to 108 per cent of the 1990 figure. The Australian government obtained this uniquely generous target at Kyoto by essentially threatening to withdraw from the Convention unless we were given special treatment. As a further concession, the Kyoto conference agreed to the last-minute request by the Australian government delegation [at 4 a.m. on the last morning of the meeting] to include land-use change in the 1990 baseline and the 2008-2012 target. This provision is known as "the Australia clause" because we were the only OECD country engaging in large-scale land clearing in 1990, so we are the only country that will get a "free ride" toward its Kyoto target simply by reducing the rate of clearing native vegetation – something we need to do to address such other problems as salinity and the state of our inland rivers.

As the world's highest per capita emitters of greenhouse gases, we have a particular responsibility to play our part. A long-term solution to the problem will need to involve developing nations in a future international agreement to reduce emissions to the level required to stabilise the atmosphere – about 40 per cent of the present level. There is absolutely no chance of achieving this goal if a few rogue nations are prepared to risk the entire planetary climate system for the sake of short-term profits. The stance of the Australian government at the Kyoto conference and since that meeting constitutes a major obstacle to the development of a genuine global agreement. It also gives aid and comfort to the others obstructing progress toward that goal, such as the current USA administration and some oil-exporting nations like Saudi Arabia. I have no wish to see Australia being described by some simplistic demagogue as part of an "axis of evil" that is actively promoting unacceptable damage to global systems by harbouring environmental terrorists. So the second reason we should sign the Kyoto protocol is that it is the agreement we negotiated with the global community, which was so eager to involve all OECD nations in the treaty that it accepted the unreasonable demands made by the Australian government, recognising that all the affluent nations need to be involved if we are to move beyond Kyoto to a global treaty involving all the major emitters of greenhouse gases. We should heed the advice of Klaus Schwab, founder of the World Economic Forum, who said before the 2000 Davos meeting that its purpose was nothing less than the creation of "a social consciousness of the global economy". If we want the claimed economic benefits of globalisation, we must also accept the social responsibilities of being part of a global community.

Despite frequent claims, there is no convincing evidence that we would suffer economically from endeavouring to meet the Kyoto target. Data presented in the 1996 State of the Environment report showed that we had not made the sorts of reductions in carbon emissions per unit of economic output made by other OECD nations, even the USA, since the oil crisis of 1973. That means we still have available many of the cost-effective savings measures introduced in Europe and north America more than twenty years ago. The task of meeting our Kyoto target has been made more difficult by a decade of inaction since the 1991 release of the report of the ESD process Energy Use Working Group and the 1992 National Greenhouse Response Strategy. Both contained a range of cost-effective measures to reduce emissions. There is no reason to delay any further these "no regrets" measures that provide short-term economic benefits as well as reducing emissions. Several commercial organisations have shown the effectiveness of this approach, reducing their emissions and improving their profitability. Most of the nations that have ratified the Kyoto protocol make less use of coal than we do, so they are less able to make easy gains by fuel switching, and have already implemented many of the easy cost-effective savings we have yet to adopt. So most other countries have targets that will be more difficult to achieve than Australia's.

Various economic modelling studies purport to show that emission reductions would cause damage to the Australian economy. Most of these studies are so fundamentally flawed as to be without any real value. They usually assume that emissions will be reduced by the price mechanism, even though we know that much of our energy use is insensitive to price. They usually assume that "business as usual" will involve continuing expansion in wasteful use of fossil fuels, when such expansion is neither necessary nor desirable. Most studies also calculate only the negative economic effects of increasing the prices of fossil fuels, without attempting to assess positive impacts; this is a serious omission, as the economic benefits of emission reduction measures appear to be of similar magnitude to the costs! Even with those obvious distortions, most of the models predict quite small negative effects. They also fail to assess the obvious negative effects on the Australian economy, especially agriculture and tourism, if the expected climate changes occur as a result of the Kyoto protocol being undermined. Nor do they assess the economic cost of Australia being excluded from emissions trading, Joint Implementation and the Clean Development Mechanism, all measures being set up under the Kyoto Protocol for its signatory nations, and all measures which Australian companies expect to yield economic benefits. It seems clear that signing the Kyoto agreement would do more economic good than harm.

Studies overseas usually conclude that most sensible reduction measures produce more jobs than are lost, for the obvious reason that they tend to replace processes that are capital-intensive and energy-intensive with processes that are more labour-intensive. Renewable energy systems employ more people than large coal-fired power stations, cycle-ways and footpaths are more labour-intensive than freeways, public transport is more labour-intensive than private transport. So we should sign the Kyoto protocol because it would probably be an economic stimulus and would certainly create jobs, on balance.

We should have a national strategy to meet the Kyoto target. It would include some measures that require government spending, some changes to the signals governments send to the community, and reducing or eliminating expenditure that now encourages wasteful emissions. We should certainly phase out the huge public subsidies for activities such as aluminium smelting, recently calculated at about \$40,000 per job. The subsidy of road freight, estimated at about \$30,000 per large truck per year, resulting in many needless deaths and injuries on the road as well as extra emissions, so it has a large social cost as well as adding needless emisisons. The huge sums expended on roads, of the order of \$15 billion per decade, constitute a successful scheme to encourage people to abandon public transport for private cars, leading to the same sorts of social and environmental effects as the road freight subsidies. As the Energy Use report pointed out ten years ago, the policy of exempting the principal residence from capital gains tax acts as an incentive to invest in wasteful housing.

Several policy measures contribute directly to the unusually poor fuelefficiency of the Australian vehicle fleet: the lack of fleet efficiency targets, public subsidies for the Australian car industry's emphasis on large inefficient vehicles, the removal of the higher tax levels on luxury vehicles and the generous treatment of the current fad of using heavy and inefficient four-wheel-drive vehicles for suburban trips. We are finally moving toward a system of appliance energy efficiency targets that reflect best international practice, about 25 years after most other OECD countries. Efficient appliances cost less to run and so provide direct economic benefits as well as reducing emissions.

By way of positive measures, we should have a serious target for non-carbon energy supply. Even the USA under George W. Bush still has a one million solar roofs scheme! Our only serious policy measure to meet our Kyoto target is the pathetically inadequate goal of an extra 2 per cent of our electricity from renewables by 2008. Even the UK, not an obvious site for solar energy, has a target of an extra 6 per cent. If we were serious about Kyoto and if we had a strategy of investing in the growth industries of this century rather than the declining ones of last century, our target would be 20 per cent. A Commonwealth government report published more than ten years ago showed that such a target could be met with no technical difficulty and no significant cost. It would be entirely reasonable to decide today that we will never build another coal-fired power station, aim to stabilise demand by improving efficiency, and gradually replace our ageing coalfired stations with renewable energy supply technology. That would be a forwardlooking energy policy.

In summary, we should sign the Kyoto target because it is our responsibility, as the world's largest per capita emitters of greenhouse gases, to make a contribution to solving the global problem. That would arguably be our moral duty, even if there were some economic cost. Our recalcitrant attitude is a major obstacle to a broader future treaty involving all major contributors to the problem. We should also sign it because the international community, negotiating in good faith in the face of the concerted disruptive tactics of the Australian government, made unusually generous concessions to accommodate our unreasonable demands. We should also sign it because even the creative economic modelling produced by vested interests give no convincing evidence that meeting the target would cause economic damage; indeed, any reasonable interpretation of the evidence suggest that we will suffer far more in economic terms if we do not sign the Kyoto protocol. While I have no doubt this conference will hear creative sophistry from vested interests suggesting we should continue to be a rogue nation, I hope there will be an informed debate about this critical issue. It is long overdue.

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