



Brotherhood
of St Laurence

Working for an Australia free of poverty

2008 Sambell Oration

CLIMATE CHANGE AS AN EQUITY ISSUE

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It is a pleasure to present the 2008 Sambell Oration for the Brotherhood of St Laurence. The Brotherhood has kept social justice issues before the Australian community and polity for a long time. This has made us a better society. It has also made us a better economy in the true sense of the terms “economy” and “economics”, which relate to the efficient use of limited resources to meet society’s more or less unlimited needs and wants.

The Australian experience of economic reform and growth over the past quarter century tells us that well-conceived policies to look after those in society who do poorly in the market place can help economic performance even by the limited objective of growth in economic output.

These issues are important in the discussion of climate change and mitigation in Australia. As I will discuss tonight, climate change and its mitigation have large implications for the distribution of income and wealth within Australia and more broadly across the international community. The work of the Brotherhood of St Laurence has been important in ensuring that these important realities have not been ignored in the Australian discussion of climate change policy. The Brotherhood’s contribution to equity dimensions of the climate change challenge was important to my own work in the Climate Change Review, the report from which was presented to the Australian Prime Minister, Premiers and Chief Ministers on September 30 this year.

I took about the same interest in climate change as the average literate citizen until mid-2007 when all of the Premiers and the then Leader of the Opposition asked me to conduct a review of the impact of climate change on Australia and of policies for Australia.

I quickly found that some of the old wisdom of economic policy analysis is readily applicable in the area of climate change. In addition, there are some dimensions of this problem that require new analytic approaches. That’s quite stimulating for someone who has spent most of a lifetime thinking about a wide range of by now familiar domestic and international economic policy problems.

The climate change issue is at its heart an ethical as well as an economic problem. It is a problem involving dimensions of income distribution that don't often cross our minds.

Climate change is first of all an intergenerational income distribution question. If we were only worried about the welfare of the human species during the rest of my lifetime, we wouldn't do much about climate change. The main impacts are longer term ones.

The most important potential impacts will have their effects over periods that extend beyond the lives of people much younger than me. You have to value the welfare of future generations at least into the twenty-second century to want to do anything much about the climate change problem. If you attach anything like the value to the welfare of people living in the twenty-second century and beyond that we attach to the welfare of people living today, some of the choices on climate change are simple. You would choose to do a lot and to start soon.

The importance of the time dimension of the climate change income distribution questions are why so much of the discussion of Professor Nicholas Stern's report, which came out in Britain in 2006, revolved around a rather esoteric consideration of discount rates. Since the Stern Report, there has been much philosophical discussion of the right discount rate through which we should compare the welfare of different generations.

If you apply the sort of discount rate that is suggested by average outcomes over long periods in equities markets, then things that happen in a hundred years time don't count for much at all. If you discount at a rate of 7.2%, the value of something that happens in ten years time is only half the value of the same thing if it happens today. The value of something that happens in a hundred years time is only one tenth of one per cent of the value of the same thing that happens today.

So the discount rate that is applied to future income and wealth and welfare turns out to be crucial in forming a view about whether anything at all should be done about this problem.

My Final Report came to two strong conclusions about the discount rate. First, it concluded that the choice of discount rate for this particular policy problem is a normative matter: the right rate to apply is the one that makes sense morally when we set out to compare the value of the welfare of people who are living at different times. It followed that there is no ethical reason for discounting the value of things that happen in the future simply because they are in the future.

There are, nevertheless, two valid reasons for applying a positive discount rate in the valuation of future welfare. First, there is a chance that the human species will not be around to enjoy the fruits or to endure the burdens of good or bad policy now. The survival of our species over the long periods that have allowed the emergence of the current remarkable but imperfect state of civilisation is testimony that the chances of extinction through natural causes are not high in one year or even one millennium. Unfortunately, the anthropogenic risks are higher, centred for the moment on the absence of adequate international controls on proliferation of weapons of mass destruction. But even taking these risks into account, the chances of extinction are not large enough to make a major mark on assessments of what we should do about global warming.

Rather more important is the likelihood that the continuation and the spreading into new countries of the beneficent effects of modern economic growth will make future generations much richer in material goods and services than current generations. For as long as there is still great poverty in the world, we should be careful about asking current generations to bear high costs to increase the material well-being of future generations—especially if those bearing the costs are the poor in our country, or even more so when they are the poor in low-income developing countries.

Taking all of these factors into account, the Final Report came to the conclusion that the appropriate discount rate was within a low range, from 1.35% to 2.65%. It happens that the appropriate discount rate to apply should a market rather than a normative rate be applied falls into this same range. Since the likely rate of economic growth in Australia over the

century ahead lies somewhere in this range, the value of a percentage point of GDP or GNP sacrificed now in mitigation, is something like the value of a percentage point gained from reduced climate change damage in fifty or a hundred years time.

A strong conclusion followed: there is a strong case for making some sacrifice of income over the next half-century, amounting to an average of about a tenth of a percentage point of GDP growth in each year, in the interests of avoiding rapidly increasing costs of climate change in the second half of this century and beyond. This conclusion follows only from analysis of conventional economic considerations. The case for strong, early mitigation is greater when we take non-material values into account.

The Final Report acknowledged that the issues would not look quite the same in a poor developing country as in Australia. There is a dreadful international income distribution dimension to policy choices about mitigating climate change. It might make perfect sense for a rich country like Australia to sacrifice a certain amount of current income for the benefit of future generations. It will not seem quite as simple a matter for a poor country, with most of its people in abject poverty, that needs strong economic growth now, to get people out of poverty and give people the luxury of thinking about environmental values and the welfare of future generations. The only way we can reconcile the common interest of all humanity in climate change mitigation, with continued rapid progress in reducing global poverty, is by making sure that an excessive proportion of the mitigation burden does not fall on the poor.

Regrettably, doing something serious about mitigation of climate change is going to require serious efforts from all, including developing countries. Developing countries have different perspectives from developed countries about the locus of responsibility for dealing with the problem. This has been apparent since the United Nations' Rio de Janeiro meeting of the early nineties first put a program of global mitigation on the international agenda. We heard then from developing countries that developed countries were responsible for nearly all of the increased concentrations of greenhouse gases that had accumulated in the atmosphere. The developed countries had become rich by using fossil fuels and putting

emissions in the atmosphere, so it was the developed countries' responsibility to do something about it.

This was put forward as an ethical question. It was put forward as a question of international income distribution, related to historical responsibility. It was related in more conventional ways to equity. And it was also put forward as a practical issue: poor countries would not cooperate unless the rich took primary responsibility for dealing with the problem.

The problem with that approach is that we are running towards dangerous climate change so rapidly, and developing countries are now making such a large contribution to the growth of greenhouse gas concentrations in the atmosphere, that there will be no solution, unless the major developing countries at least are central parts of the mitigation effort from an early date. The work of my Review has helped to draw the world community's attention to the awful realities.

There is also a big issue of domestic income distribution surrounding choices on climate change mitigation. The most vulnerable in our community would be the most affected by climate change itself. If we don't do anything about the problem, it will be the old and the frail that suffer the worst health effects. Some regions, like the traditional farming areas of the Murray Darling Basin and right across southern mainland Australia will lose their economic reasons for existence, and their populations will face great stress.

People who are relatively well-off will be able to insulate themselves—and if they are really well off also their children and grandchildren—from the effects of climate change relatively easily, at an expense that is moderate compared with their own incomes and wealth. Poorer people in our society won't be able to do so. That gives us income distribution and equity reasons for putting quite a lot of effort into avoiding dangerous climate change.

The first policies that are usually considered for reducing greenhouse gas emissions have disproportionately costly and damaging effects on people on relatively low incomes—unless

special measures are taken to counteract these adverse effects.

So climate change and the policy issues around it are at heart ethical questions, framed by the most difficult of income distribution dilemmas that can be imagined.

In the ST Lee Lecture last November, and in the Final Report, I described climate change as a diabolical policy problem. It is diabolical because of uncertainties surrounding relationships between atmospheric gas concentrations and the timing and extent of dangerous climate change: the long lags between emissions and impacts, which make it difficult to rely on observation of impacts to prompt timely policy change. It is diabolical because successful mitigation requires unprecedented international cooperation, at the same time as there are powerful incentives for international countries to free ride on others. It is diabolical because of the complexity of the income distribution effects both of climate change and its mitigation.

I am impressed by the uncertainty of the science on this question. In the current state of scientific knowledge, the further you dig the more questions arise. I think that makes a case for higher levels of investment in the science, both nationally and internationally. It certainly does not make a case for delaying action until there is no chance of avoiding high risks of dangerous climate change.

The international and income distribution effects introduce complex political economy constraints on policy action. Policies which have large effects on income distribution invite fierce contest between competing interests. I have introduced already the three acute equity dimensions of the policy problem—the intergenerational, the international and the domestic.

How then do we carve out a global agreement that will enable the world to agree on a path that will have developing countries like India, Indonesia and China as part of the solution? I discuss this at length in Chapters 8 to 10 of the Final Report, and suggest that the solution

will have four elements. First of all, we need to accept that over time the world will need to move towards equal per capita entitlements to emit greenhouse gases into the atmosphere. Countries that are able to hold emissions to below their entitlements will be able to sell permits to those that exceed their entitlements. Second, high-income countries will need to accept special responsibilities for research, development and commercialisation of low-emissions technologies. Third, development assistance from rich to poor countries will need to include provision for adaptation to the climate change that will inevitably occur. And fourth, there will need to be internationally agreed measures to prevent countries which refuse to contribute to the global mitigation effort from taking commercial advantage of their positions.

I now want to focus on the domestic equity question.

Putting a price on carbon will be the central feature of any effective mitigation regime. This raises the cost of many everyday items, especially electricity, gas and transport. How do we design a scheme where such a cost is not unreasonably carried by households with low incomes? How do we ensure that climate change and its mitigation do not force highly regressive changes in income distribution?

When I first came to this issue in detail, I was struck by the casual consideration of the income distribution dimensions of the solutions that were being discussed. We had had two major exercises in policy making around the emissions trading scheme. The first was sponsored by the states, through the National Emissions Trading Taskforce (NETT). Then the Howard government in its final year set up a taskforce to recommend on an emissions trading scheme. A majority of the members of the Howard taskforce were business people, with interests in energy, transport and other emissions intensive industries. They produced a report on the design of an emissions trading scheme last May 2007. The report to the Howard government recommended that the Australian Government should put in place an emissions trading scheme. In sectors of the economy together accounting for most emissions, it would be illegal to emit greenhouse gas without a permit. Most permits, for a

considerable time into the future, would be given free to the people who are currently responsible for the emissions.

If the law requires a permit before a person or business can emit greenhouse gases, and the volume of permits is restricted—as is necessary if this is going to be the mechanism through which total emissions are reduced—then those permits to emit have high value.

Economic analysis suggests that, in the industries producing goods and services for the domestic market, like electricity or petrol, the allocation of permits free to emitters would lead to a large income transfer from ordinary households to the corporations that were responsible today for large quantities of emissions.

The people who are allocated permits have valuable assets. They are in a preferential position in relation to the right to emit greenhouse gases. Anyone competing with them will have to go into the market and buy permits.

In a market situation it would be unreasonable to expect established producers of emissions-intensive goods and services that have been allocated free permits, to invest more or to charge less for their products, than their new competitors which have to buy permits. They will include the value of the permit in setting the price of, for example, electricity or petrol for the domestic market. They will do that whether they have been given their permits free, or have paid for them. That's what economic theory would lead you to expect in a competitive market.

I think that good economic analysis applied with good judgement illuminates economic problems. Some people don't. For those who don't trust economic analysis, I suggest looking at the experience of other countries and regions that have introduced emissions trading schemes. When the Europeans set up an emissions trading scheme a number of years ago, they gave free permits to the big energy companies supplying domestic markets. The people who were responsible for that bit of European public policy might have believed

the energy companies when they said, 'Give us the permit free and we will not charge more for that part of the electricity that we sell than we would have done without an emissions trading scheme'.

What happened next was not surprising, at least to the economist. The price of the permits was factored into the electricity price. Every time the carbon price went up, which is a necessary part of the process of reducing greenhouse gas emissions, households paid more. Households became poorer and the profits of the energy companies went up. Poor households were affected disproportionately, as they spend a higher proportion of their incomes on electricity, gas and transport. The free allocation of permits wasn't compensation to businesses of the cost to them of the permits. This was a transfer of income and wealth. The market capitalisation of the big energy companies on the London, Frankfurt and Paris stock exchanges increased. It was a wonderful time to be a shareholder in those companies. But this transfer from ordinary households to the big energy companies poisoned the scheme politically. People became resistant to increases in the price of carbon because it simply led to a transfer of income from ordinary households to energy businesses. That is one of the reasons why, under political pressure, European countries started giving out more permits. That led to, at one stage, a collapse in the carbon price nearly to zero. So the European emissions trading scheme for a while didn't do the job that it was supposed to do.

It was always naive to think that giving a free permit to an emitter would affect the price charged for goods and services, or investment in producing them. There is no more reason to expect that giving a free permit to an energy company would have any more effect on pricing of petrol or electricity, than to expect that someone who inherits a house from a deceased relative would take into account the fact that that house had been received at no cost, in setting a rental or sales price. Some things don't happen in a market economy.

The Europeans have learnt their lesson. At least, the Treasury bureaucrats in Berlin, London and Brussels have learnt their lesson. The recent green paper on the post-2012

arrangements, the post-Kyoto arrangements for Europe, anticipates that all of the permits for the domestic energy sector will be sold by auction. No doubt there will be political resistance to the European proposal. No doubt lots of arguments will be developed to justify free issue of permits to domestic energy companies.

The recommendation from the officials in Brussels and Whitehall and Berlin is based on analysis as well as experience. The Treasury bureaucrats who are responsible for the post-2012 proposals would have anticipated the consequences of giving permits free to domestic energy companies. They found it difficult to make the case then. Now their analysis is supported by the experience of what actually happened.

Putting a price on carbon runs the risk of damaging the welfare of low-income Australians immediately but also through the structural pressures that it puts on the economy. An effective emissions trading scheme will affect differentially various sectors of the economy and various geographic regions. It is possible that it could hurt some industries in ways that did substantial damage to some communities. We need to recognise these possibilities, and have policies to manage their consequences.

The centrepiece of climate change mitigation in Australia is going to be the introduction of a national emissions trading scheme.

We are not going to be able to maintain the steady mitigation policies over long periods of time that are necessary to get our emissions down, unless our community thinks that the policies are fair. For that reason, getting the income distribution effects of the emissions trading scheme right is an essential part of getting the scheme itself right. Looking after low-income Australians is not part of the design of the scheme itself, but the success of income distribution policies will determine whether the intrinsic operations of the emissions trading scheme will work.

When I started my work on climate change policy in the middle of 2007, I was struck by the

absence of consideration of income distribution matters. The public processes of the review and now the Final Report have come some way to putting onto the public stage a range of ideas for handling income distribution effects of mitigation policy. I suggest that half of the considerable value of permits be returned to households, with an emphasis on the lower half of the income distribution. In the early years, starting as soon as possible and if feasible before the introduction of the scheme, part of this compensation to low-income households could usefully take the form of green credits, of value up to \$1,000 per person, be made available to improvement in energy efficiency and reduction in emissions at a household level, to reduce the costs of the new mitigation measures to low-income families. The balance, and over time the great bulk of the compensation to low-income households would be made available through adjustments to the tax and social security systems.

Here I should note that the Minister for Climate Change, Penny Wong, and the Government, have emphasised the importance of compensating low-income households. This was a feature of the July Green Paper on the emissions trading scheme.

In conclusion, a few words about the relationship of the mitigation of global warming to the current financial crisis.

It has been suggested that the pressures of the crisis make mitigation at once less urgent and less likely.

The financial crisis does not make the problem less important or less urgent. Recession in the developed and lower growth in the developing world will reduce the growth in greenhouse emissions this year and next. But it will not in itself reduce the long-term path of emissions growth.

The cost of mitigation would be lower in an economic environment of slower growth than in the inflationary conditions established by the resources boom in the years preceding the crisis. Most governments are in the process of shifting to expansive fiscal policies.

Focussing part of the expansion out of recessionary conditions on investment in research, development and commercialisation of low-emissions technologies makes good economic sense, and is likely to be politically attractive.

Nevertheless, the preoccupation with the financial crisis and its aftermath may distract the Australian and international polities from the urgent task of mitigation.

That would be a costly mistake. The consequences of unmitigated climate change would still be here tomorrow. The chances of avoiding high risks of dangerous climate change may not.