



# **Targets and trajectories**

Supplementary Draft Report

*National Press Club Address*

5 September 2008

Garnaut Climate Change Review

## 1. A FATEFUL CHOICE

There are moments in the history of humanity when fateful choices are made. The decision over the next few years on whether to take strong action to mitigate human-induced climate change is one such moment.

When societies receive a large shock to their established patterns of life, the outcome is unpredictable, and problematic. Things fall apart. The financial shocks that hit colonial Australia in the 1890s, the industrial world in the 1930s, and Indonesia in the late 1990s, were in themselves of substantial but manageable dimensions. But they were large enough to exceed some threshold of society's capacity to cope with change. In each case, what might have been a recession of significant but non-historic magnitude, became a great depression. Total output fell by a fifth and more. The associated social convulsions fundamentally and permanently changed political institutions, and shifted the whole trajectory of economic growth.

The Centre for Strategic and International Studies (CSIS) in Washington has recently published a study (2007) on the impact of climate change, based on several scenarios. One of these involves "catastrophic climate change", based on an assumed 5.6 degree temperature increase over the course of the twenty first century. This is similar to the central scenario developed within the Review, based on the "business as usual" or "no mitigation" case set out in Chapter 5 of the Draft Report. The CSIS paper found that this extent of climate change "would pose almost inconceivable challenges as human society struggled to adapt." It went on to note that "The collapse and chaos associated with extreme climate change futures would destabilize virtually every aspect of modern life" (pp. 7, 9).<sup>1</sup>

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<sup>1</sup> The report was prepared by, among others, former CIA Director James Woolsey, former Chief of Staff of the

The devastation wrought by a temperature increase of 5 or 6 degrees would be global in nature, but Australia and some of its developing country neighbours are amongst the most vulnerable (Draft Report Chapter 7).

One main theme of the Review is that the accelerated growth of the developing world, the Platinum Age, has not been factored into expectations of emissions, concentrations or temperatures (Draft Report Chapter 4). This growth, centred on but now extending well beyond China, is unprecedented, and likely to be sustained over a considerable period.

During the extensive discussion of the Review's Draft Report in July, 2008, some critics claimed that some of the descriptions of impacts were "alarmist". I responded that I was simply telling the story as it fell out of the analysis, when the emissions growth from the Review's own work was applied to "centre of the road" judgements on the relationship between concentrations of greenhouse gases and temperature derived from the mainstream science.

The task of reducing the risks of dangerous climate change to acceptable levels is immense, and complex. It requires participation from all major economies. The process of international cooperation, escaping the prisoners' dilemma described in the Draft Report, is perhaps the most formidable of international relations challenges; more formidable than the multilateral trade negotiations which have recently collapsed. The development of domestic policies consistent with ultimate international agreement is immensely difficult in every country.

The saving grace is the huge community support, where recent polling has suggested that the Australia community is supportive of taking action on climate change even if it

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President John Podesta, former National Security Advisor to the Vice President Leon Fuerth, Pew Center Senior Scientist Jay Gullede, and former Deputy Assistant Secretary of Defence for Asia and the Pacific, Kurt Campbell.

will cost them and even if Australia has to act unilaterally.

There is a chance, just a chance that humanity will act in time and in ways that reduce the risks of climate change to acceptable levels.

## 2. SUMMARY OF CONCLUSIONS

Is it possible to secure effective international action to reduce the risks of dangerous climate change to acceptable levels, presuming that Australia would play its proportionate part in the global effort? If so, what degree of mitigation would be in Australia's interests, and what would be an appropriate Australian contribution to the global effort? What should we do in the interim if it takes time to secure effective international action?

To answer these questions, we must look over the whole canvas of the Review's work: the analysis of the scientific impacts (Chapters 3, 5, 6 and 7 of the Draft Report); the projection of business-as-usual growth in emissions in the world and in Australia (Chapters 4 and 8); the assessment of Australia's share of a global mitigation responsibility (Chapters 11 to 13); and measuring the immeasurable, the framework for bringing together the various costs and benefits of mitigation (Chapter 2). The Review's suggestions for targets and trajectories also brings into account the quantitative work on costs and benefits of mitigation since the release of the Draft Report, which will be described in detail at the time of the Final Report.

I remind viewers of the framework of costs and benefits of doing something about the climate change problem that I set out in the Draft Report. Some of the costs, Type 1, have standard economic costs and can be modelled. Some, Type 2, have standard economic costs and can be estimated. Some, Type 3, are potentially much more serious and are not included in our modelling. Others, Type 4, affect non-market values,

including environmental quality. And are also not included in modelling.

Our estimates of costs and benefits of mitigation cover only Type 1 and Type 2 costs and benefits this century. Most studies of climate change benefits attach higher importance to benefits Type 3 and 4, and in later centuries.

The modelling of mitigation can tell us how much conventional GNP we have to sacrifice this century, to insure ourselves against really awful outcomes this century, to protect non-market values, and to insure against much bigger impacts of all kinds in later centuries. We would not do this if we placed no value at all on what happens to Australia in the second half of this century and later.

### Policy in the Kyoto Period

There are several good reasons why it is desirable for an Australian emissions trading scheme to commence in 2010.

The remainder of the Kyoto period is best considered as a transition period, in which the emissions trading scheme is established soundly for the larger task that will lie ahead of it after 2012. Australia's aim should be to work within the international community to secure a global agreement around a firm emissions stabilisation goal. It should be prepared to play its full, proportionate part in achieving that goal. Pending the completion of the international discussions on post-Kyoto arrangements, it is better not to focus on a single trajectory, but to have in mind a set of possibilities, the choice amongst which will be determined in an international context.

### Beyond Kyoto

The Review has considered two cooperative global mitigation scenarios (introduced in Chapter 5 of the Draft Report). The two scenarios represent cooperative solutions in

which the countries of the world agree to share the burden and to work towards stabilizing greenhouse gases at a particular level.

Australia's target, as explained in Section 5 of this report, should be to reduce emissions by 10 per cent from 2000 levels by 2020 (30 per cent per capita), and 80 per cent by 2050 (90 per cent per capita). This is a reduction of 17 per cent (27 per cent per capita) from the levels that are expected in 2012, at the end of the Kyoto period. A binding international commitment to the 2020 outcome would be made within the context of, and conditional on, an effective global agreement that is designed to stabilise global concentrations of greenhouse gases at 550ppm by mid-century.

Analysis suggests that the price would settle in the mid-\$20 range in 2013, and rise at an annual rate of 4 per cent plus the increase in the general price level. If this were the outcome, there would be a smooth transition from the fixed permit prices of the transition period, to the floating price.

Some Australians advocate the postponement of any substantial effort until international agreement is reached, because they want Australia to do as little mitigation as possible. I am linking the central recommendation on targets and trajectories to comprehensive global agreement because international agreement is urgent and essential; because agreement is possible if Australia and some other countries attach enough importance to it; because it is the only way to remove completely the dreadful political economy risks, to Australia and to the global trading system, of payments to trade-exposed, emissions-intensive industries; and because the lower Australian mitigation costs with which it is associated allow us to be more ambitious about the reduction in emissions.

The analysis suggests that a more ambitious global objective would better suit

Australian interests. However, the Review has reluctantly concluded that more ambitious international agreement is not possible at this time.

If international developments change the conditions that led to this judgement, Australia should encourage acceptance of more ambitious global objectives. In any case, Australia should now indicate its willingness to play its proportionate part in future, and if possible early, movement towards a more ambitious global goal than 550 ppm. Therefore, the details of the targets and trajectories that the Review is recommending will not be the best for all time. They are the best available to us now.

### **Australian settings in an ad hoc policy world**

In the absence of comprehensive agreement on global greenhouse gas emissions reductions (the ad hoc world), Australia, as one of the developed countries, should commit to reducing emissions from 2000 levels by 5 per cent (25 per cent per capita) by 2020. This is consistent with the Government's policy of reducing emissions by 60 per cent by 2050. This would be an unhappy conclusion of discussions over post-Kyoto arrangements. Opportunities to hold risks of dangerous climate change to acceptable levels diminish rapidly after 2013 if no major developing economies are accepting constraints to hold emissions significantly below business as usual by that time.

The success of Australia's mitigation efforts will depend crucially on the competitive sale of permits, and the effective use of the substantial revenues along the lines set out in the Draft Report (see Chapter 15).

The proposed targets for Australia have been selected because they involve comparable abatement effort to other developed and developing countries, calculated within an internally consistent framework compatible with global agreement around specified emissions concentrations objectives. The numbers expressed in absolute terms

turn out to look less onerous for Australia in the early years, because they are based on per capita allocations of emissions rights. Australia's population, because of this country's longstanding and large immigration programme, has been and will be growing much faster than populations in other developed countries.

Australians can think of many reasons why their situation is different from other developed countries, and why their emissions reduction targets should be less demanding. So can people from every other country. There will be no progress towards an effective international agreement if each country lays out all of the special reasons why it is different from others, and why it should be given softer targets. When climate change negotiators from any country list reasons why their country has special reasons to be treated differently, and take them seriously, we should be quick to recognise that the negotiators, and the countries they represent, intentionally or not, are inhibiting effective international agreement.

The focus on per capita allocations is legitimate. Indeed, it provides the only possible basis for an international agreement that includes developing countries, many of which have insisted on convergence over time to equal per capita entitlements. The Review's approach to allocation of emissions rights requires somewhat higher per capita reductions in Australia than in many developed countries.

The Draft Supplementary Report sets out the cost to the Australian economy to 2020 of the post-2012 proposals. Even the most ambitious mitigation scenarios would include manageable – but not insignificant – reductions in Australia's growth in living standards.

For the other scenarios, the costs to GNP growth to 2020 are less than two tenths of a percent per annum to 2020. Australia can afford to make unconditional and conditional policy commitments of respectively reducing emissions by 5 per cent and 10 per cent in

2020 from 2000 levels (equivalent to per capita reductions of 25 per cent and 30 per cent, respectively).

Australia substantially increases its reductions in emissions, at negligible additional cost, if the broadest possible agreement can be reached by the global community. The broader the opportunities for low cost abatement, the lower the overall cost for Australia.

The costs of well-designed mitigation, substantial as they are, do not threaten to derail the long-term growth path of Australia, its developing country neighbours, or the global economy. Unmitigated climate change probably would.

### **3. SOLVING A DIABOLICAL PROBLEM IN STAGES**

The diabolical problem of climate change is due to the uncertainties about the science of climate change and the cost of mitigation. These can be reduced by research, which requires time, and by new observations made available by the passing of time. The resolution of the other diabolical problem, the prisoner's dilemma, requires close communication between sovereign parties, to allow disparate perspectives to be reconciled, and confidence in collective action to be developed.

Time is an essential element in any resolution of the policy problem.

In such circumstances, the only way through the constraints is to make a start on domestic and international action, along paths that may now be feasible, but which in themselves do not lead quickly to ideal outcomes. Early action, even if incomplete and inadequate, on a large enough scale, can buy time, and begin building the foundations for effective collective action.

But any old action will not help. To buy time and to help build the foundations for effective collective action it has to be well conceived in domestic and international terms. Actions that have high costs for minimal effect are likely to inhibit rather than build

domestic support for effective mitigation. In the international sphere, policy initiatives which create tensions between countries over perceptions of equity, or which set in train protectionist actions and responses, will corrode rather than build confidence in collective action.

This is the context in which the Review has framed its recommendations on targets and trajectories. The details of the targets and trajectories that the Review is recommending will not be the best for all time. They are the best that are available to us now. In the context of well-designed domestic policies on emissions reduction, encompassing correction of market failures in response to prices being placed on emissions as well as to the emissions prices themselves, and carefully conceived international policies, they will lay the foundations for effective additional steps. Those steps will become easier to take as confidence grows in the knowledge base for strong policy action and in the feasibility of effective international action.

The first step, built around immediately moving onto a path of global emissions designed to stabilise concentrations of greenhouse gases at no higher than at 550 ppm, is large and far-reaching enough to keep open the possibility of avoiding high risks of dangerous climate change.

Australia has faced diabolical problems before. Many Australians will not think it too light-hearted if I draw a comparison of the situation we were in in Hobart, in November 1999. When we began our second innings, the fourth innings of the game against the best bowling attack in the world other than our own, we had to score 369 to win, higher than any last innings score ever to win a Test Match. Pakistan quickly had us on the ropes at 5 for 126, when Adam Gilchrist joined Justin Langer.

After the famous victory, Langer revealed the secret of reaching a goal that looks our

of reach. "I said to Gillie, lets have a crack, because you never know".

The secret is not to get hung up about the impossible goal. Set your mind on getting through the next over, then the next hour, then the next session. After you have made some ground, its not impossible.

That's the spirit in which I commend the goal to Australia of reducing emissions by 10 per cent from 2000 levels by 2020, within a global agreement to 550ppm. The path to 450ppm lies through early progress on 550ppm. The path to 400ppm lies through early progress on 450ppm.

There's just a chance!