

A DIABOLICAL POLICY PROBLEM: SECURING INTERNATIONAL AGREEMENT

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I have described the mitigation of human-induced climate change as a diabolical policy problem. It has many demanding dimensions, any one of which might seem to make it unlikely that the human species will be up to the challenge.

The most difficult of its challenging dimensions is that there can be no effective mitigation without all countries of substantial size making major contributions to the solution. And yet each country has an interest from a narrow national perspective in doing as little as possible, so long as its own free riding does not undermine the efforts of others.

There is a common tendency of people in each country to think that they can free ride on others without that affecting the global outcome, and that makes it even more difficult to break free from the prisoners' dilemma.

The apparent national benefits from free riding make climate change mitigation a more difficult subject of international negotiations than trade or arms control.

With trade, unilateral reduction of protection will make a country richer whatever other countries do. And yet it is hard enough to achieve international agreement of mutual reduction of protection.

With arms control, at least unilateral reduction of defence expenditure has a national benefit for the budget and economic growth.

The international policy problem is also more difficult than most other environmental problems, like removing pollution from the air of large cities, or cleaning up degraded rivers. These and most other environmental problems can be resolved through the action of a city or national government, or by cooperation between neighbouring countries. When the people of the city or country or set of neighbouring countries become richer, they are prepared to sacrifice more income for a cleaner environment. Local action emerges, and is effective. The streets and air in Melbourne and the water in Tokyo Bay are cleaner by many important measures than they were a generation ago, although the cities are incomparably richer and in the case of Melbourne bigger.

The climate change problem requires cooperation of the whole world. It is not amenable to a local solution. Therefore a solution will not emerge country by country as each country becomes rich.

The problem is made even more difficult by one feature of the history of international discussion of climate change. The international community agreed at the beginning of the United Nation Framework Convention on Climate Change in the early 1990s that the developed countries would make commitments to and implement major actions to reduce their emissions before developing countries would be expected to take these steps. Further, developed countries would be expected to meet the incremental costs of mitigation in developed countries.

There was some justice in this approach, since the countries that are now developed had been responsible for the increase in concentrations of greenhouse gases in the atmosphere that had taken the world to the threshold of dangerous climate change.

It also seemed at that time, the early nineties, that such an approach was consistent with effective climate change mitigation. In the early nineties, developing countries accounted for only about a quarter of global emissions, and there was still thought to be some headroom in concentrations before the thresholds of danger had been crossed.

In 2009, the constraints are much tighter. In the early twenty first century, emissions have been growing much more rapidly than before and than previously anticipated.

The Great Crash of 2008 and the Great Recession which followed are likely to be brief interludes in the growth of global emissions. In any case, now, in the depths of by far the worst economic downturn since the 1930s, current emissions are still at a level at which concentrations of greenhouse gases in the atmosphere are growing strongly.

We have squandered the time and the headroom that we had in the early 1990s. We need to change the trajectory of global emissions urgently if high risks of dangerous climate change are to be avoided. Developing countries now account for about 40 percent of emissions. The calculations that I presented in the Garnaut Climate Change Review indicate that, in the absence of mitigation, developing countries would be likely to account for around 90 percent of the growth in emissions over the crucial two decades ahead.

There will be no solution if those who want effective action rely on slogans rather than analysis of the international situation.

There will be no effective mitigation from unilateral action in single countries, however good that may feel to some people in those countries. Indeed, taking a step too far on a unilateral basis may set back the global mitigation effort. It is much more costly for one country to achieve a specified degree of mitigation

alone, than it would be to achieve the same level of mitigation within a global agreement. The high costs of achieving high mitigation targets unilaterally may demonstrate to others the difficulty rather than the feasibility of action.

It seems unfair that developing countries have to accept major commitments to mitigation when the countries that grew rich before them were not so constrained. Unfair or not, there will be no effective global mitigation without all substantial countries reducing emissions significantly below business usual from a time not far from now.

The differentiated treatment in favour of developing countries of which the UNFCCC agreements speak has to take the form of obligations for developing countries that are consistent with continued strong economic growth, rather than the absence of obligations.

The world's challenge is not to reduce emissions by reducing material living standards. There is no chance at all of Australia or any other country committing itself to mitigation on those terms. The challenge is break the nexus that has always been present in the past between growth in living standards, and the growth in greenhouse gas emissions. Fortunately, the economics says that it is possible to reconcile reduction in emissions with continued economic growth in the world as a whole and in each of its parts.

There will be no effective global agreement that reduces to acceptable levels the risks of dangerous climate change unless all substantial countries think that the principles behind it are fair. To find these principles requires leaders and representatives of all countries to listen to what others are saying. It requires leaders and representatives of all countries to help their communities to listen to what others are saying.

It then requires hard work in formulating an international agreement that adds up to effective action, and which is seen widely across the international community as being fair.

The resolution of this problem would be impossible as well as diabolical if it were not for one saving grace. The saving grace is the exceptional public interest in the subject, and the concern of many citizens in many countries that there be effective action. This stops governments giving up when the domestic politics seems to be too hard.

My own work suggests to me that an international agreement would need to have the following interlocking elements:

1. Agreement on the level of greenhouse gas concentrations that would strike the best balance between economic costs and risk of climate

change. There are risks and costs of dangerous climate change even if we were to hold concentrations of gases in the atmosphere at present levels. To hold concentrations in the atmosphere at current levels would require drastic reductions from current rates of emissions, from now, today if not yesterday. The Australian Government accepted my recommendation that it was in the Australian national interest for the world to agree on holding concentrations at or below 450ppm, with Australia playing its full proportionate part. The international discussion is converging towards acceptance of this objective for the time being. Realistically, the path to any more ambitious mitigation outcome is through an initial agreement to 450ppm, which is extended as confidence grows in the feasibility of reconciling emissions reductions with rising material standards of living.

2. The global emissions concentrations objective defines a global budget for emissions over the time to achievement of the concentrations objective. There needs to be an agreement on allocation of that budget amongst countries that adds up to the budget. Agreement has to be based on principles that are widely seen as being fair. Fair to rich and poor countries. Fair to rich countries which start with extremely high emissions per person, like Australia Canada and the United States, and to rich countries in which each person has far lower levels of emissions, like Europe and Japan. Fair to developing countries with rapidly growing economies like China, India and Indonesia, and to poor countries with stagnant or slowly growing economies like many countries in Africa and the South Pacific. There is no agreement that will seem fair unless it is based on the idea that each country's entitlements to emit will converge towards eventual equal per capita levels at some time in the future.
3. Notice that the agreement needs to be based on entitlements and not on actual emissions. It greatly improves the chances of effective climate change mitigation if there is freedom to trade entitlements, so that countries in which mitigation is relatively cheap and easy—for example, in countries with large emissions from forest degradation—can reduce emissions below their entitlements, and sell the “surplus” entitlements to countries in which reduction in emissions is expensive and difficult. There is no prospect of our immediate neighbours, Indonesia and Papua New Guinea, taking major action to reduce emissions within a global agreement if there are no opportunities to sell what turn out to be surplus entitlements. There are good prospects for their full participation in an agreement if there are opportunities to sell surplus entitlements at market prices.

4. The developed countries need to agree to take the lead in public support for research, development and commercialisation of new technologies. A proportion of expenditure within an International Low Emissions Commitment would be deployed in developing countries.
5. We are too late to avoid considerable costs of climate change. That will be a problem in all countries. Poor developing countries do not have the institutions, financial capacity or human skills to respond alone in an economically effective way to the problem. Developed countries will need to make major additional commitments to development assistance to support developing countries' adaptation to climate change.

There is a deal to be done, within what is politically feasible in the major countries. China, for example, has already committed itself domestically to do as much and more than the Garnaut Review suggested would be required of it by 2020, within an agreement directed at concentrations of 450ppm. But China is yet a long way from committing internationally to deliver that outcome.

Australia's proportionate contribution to an effective global agreement to achieve an ambitious (450ppm) international agreement would have several parts. We would need to commit to reduce emissions by 25% from 2000 levels by 2020, and by 90% by 2050. This would be difficult. It would carry significant costs to growth in material living standards. But it could be done consistently with continued growth in living standards. Australia would need to increase considerably its public expenditure on research, development and commercialisation of low-emissions technologies. Australia would need to raise significantly its development assistance for climate change adaptation, particularly to our neighbouring countries in Southeast Asia and the Southwest Pacific.

The 25% reduction of Australian emissions entitlements by 2020, and the 90% by 2050, are not numbers plucked out of the air. They are derived from the idea that entitlements should converge on equal per capita allocations by 2050. There has been much international discussion of this basis for allocating entitlements since the Garnaut Review was released on September 30 last year. Some commentators in developing countries have said that that is too long to wait for convergence. The Australian and American discussion has wondered whether that is too much too soon to be manageable. This is the discussion that the world has to have: discussion of alternative ways of dividing up a global emissions budget that add up to avoidance of high risks of dangerous climate change.

Is there a chance of striking a global agreement that avoids high risks of dangerous climate change in December in Copenhagen this year?

Not all in one step. There is, however, a chance that a set of principles is agreed in Copenhagen that is the basis of an effective global agreement that significantly reduces the risk of dangerous climate change. That would need to be followed by detailed and highly technical discussions of numbers that add up to a solution.

Breaking the Prisoners' Dilemma remains the most difficult international as well as national policy problem that we have ever faced. But in June 2009, with Australia and the United States having decided to play for the international team rather than against, there is now a chance.