

Despite the Bali show-and-tell, carbon targets continue to be futile

Alan Moran

If burning fossil fuels is the major cause of global warming then the prospects of preventing it are slender.

Fast growing developing countries currently have relatively low levels of carbon emissions. However, their economic growth is highly dependent on fossil fuels and this presents seemingly insuperable obstacles to stabilising world carbon dioxide emissions.

In 2004, global greenhouse gas emissions (in CO₂ equivalents) were 28,790 million tonnes. Just over 10 per cent of these were from the former Soviet bloc and the rest split fairly evenly between the OECD countries and the developing world. Emissions from OECD countries grew at 1.3 per cent per annum between 1990 and 2004. Developing countries annual emissions growth was 5.7 per cent. The former Soviet bloc's emissions fell by 1.7 per cent per annum.

In 2008, developing countries' emissions will exceed those of the OECD countries. This will increasingly dilute any actions taken by the developed OECD nations, the only group seriously considering abatement measures. The dilution is further amplified if abatement in the OECD is achieved by smelting and other energy intensive activities being migrated to developing countries.

In spite of the rapid growth in developing country emissions, their per capita emissions remain considerably below those of the OECD countries. In 2004, OECD emissions averaged 11.5 tonnes per capita (the US and Canada were at 20 with Australia at 16.2). Per capita emissions in developing countries averaged 2.4 tonnes. Table 1 illustrates recent emission levels and trends.

There have been suggestions that the developing countries should be brought into an emission reduction scheme by granting them tradable emission rights. This offers superficial attractions of all round wins. Developing countries would be given rights that would be surplus to their requirements, rather like the earlier case when post-communist countries in the former Soviet bloc were brought within the system. Those countries' adoption of capitalist production and pricing methods encouraged conservation of resources and meant their previous emission levels were far higher than those they now required. Granting them their existing levels of emissions and allowing them to trade the surplus amounts handed them windfall gains.

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Table 1: CO₂ equivalent emissions 1990–2004 (million tonnes)

	1990	2004	Annual increase
OECD	11,205	13,319	1.3%
Former Soviet bloc	4,182	3,168	-1.7%
Developing countries	6,833	12,303	5.7%
Total	22,220	28,790	2.1%

Source: United Nations Development Programme

Table 2: Emission stabilisation scenario (million tonnes of CO₂ equivalent)

	2004	2030
OECD	13,319	10,655.2
Former Soviet bloc	3,168	3,168
Developing countries	12,303	14,966.8
Total	28,790	28,790

Source: United Nations Development Programme

The treatment of the former Soviet bloc countries in this way was crucial to getting their agreement to the Kyoto Convention and in turn to receiving the global support necessary for it to come into force as an international treaty. But at the same time this vastly expanded the quantities of permitted emissions, thus undermining the basic intent of the Kyoto Protocol. The far greater magnitude of developing country emissions, their less wasteful use of energy and their future need for much higher levels of energy use makes it impossible to adopt a similar approach.

With the constraints on the Kyoto approach it is arithmetically infeasible to bring in developed countries to achieve stabilisation at 2004 levels of 28,790 million tonnes under any reasonable or fair apportionment of the emission levels. It follows that any consideration of rolling back emission levels is ludicrous.

This is readily illustrated. If OECD countries were to reduce their emission levels by 20 per cent—the minimum that has been floated at Bali—and the former Soviet bloc were to hold their emissions constant, then to achieve stabilization in 2030 would require developing countries to limit their increases in emissions by 22 per cent as illustrated in Table 2 above.

While superficially generous to the developing countries the 22 per cent increase is a massive reduction compared with business-

Table 3: Levels of Kyoto Protocol achievement

	2008-12 target	2005 (including clearing)	2005 (excluding clearing)
Australia	8%	4.5%	25.6%
Canada	-6%	54.2%	25.3%
European Union	-8%	-4%	-1.5%
Japan	-6%	7%	6.9%
New Zealand	0%	22.7%	24.7%
Norway	1%	23.1%	8.8%
United States	-7%	16.3%	13.3%

Source: Intergovernmental Panel on Climate Change

as-usual levels. Compared with the 15 billion tonnes of carbon dioxide equivalent projected under this scenario, business-as-usual levels—based on previous growth rates—would see developing countries emitting over 23 billion tonnes in 2030. Moreover, because of their population growth, limiting developing countries' emission levels to 15 billion tonnes of carbon dioxide equivalent would result in their emissions per head actually *falling*, from 2.4 tonnes to 2 tonnes. This is less than one fifth of the OECD 2004 per capita average of 11.5 tonnes and only a quarter of the OECD average in 2030 which is 7.9 tonnes once a 20 per cent reduction and population growth is incorporated

Under the mix of current technologies stabilisation of emissions cannot be achieved unless developing countries were forced to follow a similar emission reduction path to OECD Countries (leaving their per capita emission levels at one quarter of those of the OECD). If, for example, developing countries were to maintain their 1990-2004 levels of increase and the former Soviet bloc's emission levels remained constant, this would leave virtually no emissions for the OECD group in 2030. Even under that scenario the developing countries' 2030 per capita emissions would be less than one third of the current OECD level.

There is, of course, the prospect of new technologies emerging. Draconian cuts in emission levels would require taxes or prices on emission levels that would certainly stimulate the discovery of these as well as energy use economies. But the necessary technological breakthroughs

have, as yet, barely been imagined.

A wholesale replacement of coal and gas by nuclear for electricity generation would also be capable of achieving the required reductions—at least over the next forty years. However, those pressing most strongly for emission reductions are also fervently opposed to nuclear power.

Short of unknown breakthroughs or a comprehensive acceptance of nuclear power, not only do the aspirations of developing countries doom any significant halting in the growth of greenhouse gas emissions, but the actions of the OECD group are equally fatal. Many of these countries, including Australia, have incurred considerable costs in subsidising and regulating for hopelessly uncompetitive energy sources that are low in emissions.

In spite of this, and the fact that the early gains are likely to be the easiest because they tap into the fabled 'low hanging fruit', no major player will meet the obligations it signed onto. Although individual European Union countries will meet their targets—Germany because of unification, and the United Kingdom because of the shift from coal powered electricity generation—the EU as a whole is presently falling short and this is likely to be amplified once the next five years data is in.

Australia, which claimed to be only 4.5 per cent above 1990 levels in 2005 will, if the economy continues to grow, be some 14 per cent above 1990 levels for the Kyoto yardstick average of 2008-12. Australia would be over 25 per cent above its (highly generous) Kyoto target of 108 per cent of its 1990 levels, if it were not to include its

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creative (and unplanned) definition of land clearing among its credits. Norway has also benefited from this unplanned inclusion of clearing credits and, as a result, is the only country meeting its target. Canada, often in the vanguard of countries that loudly trumpet their political correctness, is among the worst performers.

Table 3 is drawn from the latest United Nations Framework Convention report and indicates levels of achievement compared to targets in 2005. The levels are expressed on two bases: with and without counting land use changes.

All this leaves the only options as either further increases in emission levels or forced abatement measures that will curtail the growth in living standards.

Perhaps any action will be in vain. Although carbon dioxide levels are increasing, recent temperatures are not. Notwithstanding 2007 as the year of the Nobel Prizes and hype like 'the hottest year on record', the satellite data reveals a different picture. It shows 2007 was not a particularly warm year and was in fact cooler than the average since 1979 when the first satellite recordings became available. The earth has warmed 10 degrees centigrade from the end of the last Ice Age without any assistance from humans. It may continue to warm or it may cool with or without human intervention. Any climate change will have mixed effects but, in the absence of a world dictatorship changing human behaviour, reducing carbon dioxide emissions is not possible.

