

The Globe and Mail, February 8, 2010

Climate Strategy on a Road to Nowhere

By Bjørn Lomborg

Like many countries, Canada has grappled with how to respond effectively to climate change. The federal government has reportedly contemplated both a cap-and-trade carbon emission reduction scheme and a carbon tax, while attracting environmentalist scorn for allowing the development of the oil sands production industry. This month, it announced it would match U.S. greenhouse-gas emission reduction targets – but has yet to establish how it will reach those targets.

The way forward will be clear if politicians pay attention to the clear lessons from the failure of the Copenhagen climate summit in December. Negotiations to create a binding agreement on international carbon emission reductions fell apart amid chaos. Faced with the prospect of going home empty-handed, leaders agreed at the last minute on a non-binding political deal that promised nothing meaningful in the fight against climate change.

It is important to understand the two key reasons why the Copenhagen summit broke down.

First, developing nations have no intention of letting the developed world force them to stop using carbon-emitting fuels. Nations such as China and India are understandably wary of any policy that might curtail the domestic economic growth that is allowing their populations to clamber out of poverty. That is precisely what drastically reducing their carbon emissions would do.

Second, even for developed economies such as Canada, trying to force drastic cuts in carbon emissions makes no economic sense. All the major climate economic models show that, to achieve the much discussed goal of keeping temperature increases under two degrees, we would need a global tax on carbon emissions that would start at \$106 per ton (or about 25 cents per litre of gasoline) – and increase to \$4,200 per ton (or \$9.83 per litre of gasoline) by the end of the century.

In all, this would cost the world \$42-trillion a year. Most mainstream calculations conclude that, all in all, this spending would be 50 times more expensive than the climate damage it seeks to prevent.

For two decades, we have steadfastly ignored these economic realities. The result is that we have not gotten anywhere. Leaders from wealthy countries met in Rio de Janeiro in 1992 and promised to cut emissions by 2000. Those promises were broken. Politicians met again in Kyoto in 1997 and vowed to make stronger reductions. As Canadian experience bears out, despite the well-meaning promises made 13 years ago, global carbon emissions have continued to climb virtually unabated.

It is time, finally, to learn from our mistakes. While global leaders focused single-mindedly on cutting fossil fuel use by promising to cut carbon emissions, they have failed to invest anywhere enough money into ensuring that alternative technologies are ready to take up the slack. Keep in mind that global energy demand will double by 2050. Based on our current progress, it is clear that alternative technologies will not be ready to play a significant role.

Consider the most hyped alternative technologies: Together, wind and solar energy supply less than 0.6 per cent of the world's entire energy needs. They are not only much more expensive than fossil fuels, but there are massive technological hurdles to overcome to make them efficient: direct-current lines need to be constructed to carry energy from the areas of highest sunshine and wind speeds to the areas where most people live, and storage technology needs to be invented so that when the sun doesn't shine, and the wind doesn't blow, the world still gets power.

A significant increase in research and development investments a year is needed to produce a real technological revolution. Spending 0.2 per cent of global GDP product – roughly \$100-billion a year – on green energy R&D would produce the kind of game-changing breakthroughs needed to fuel a carbon-free future.

Economists Chris Green and Isabel Galiana of McGill University calculated the benefits – from reduced warming and greater prosperity – of this sort of investment, and conservatively concluded that each dollar spent on this approach would avoid about \$11 of climate damage. This compares starkly with other analyses showing that each dollar spent on strong and immediate carbon cuts would achieve as little as \$0.02 of avoided climate damage.

Not only would this be a much less expensive policy than trying to cut carbon emissions, it would also reduce global warming far more quickly.

Canada could play a key role in the response to climate change by developing a policy based around the development of a research and development fund. This would be an effective way to show leadership on climate change, and to unleash Canadian entrepreneurship and creativity.

Public funds are needed because we cannot rely on private enterprise alone. As with medical research, early innovations will not reap significant financial rewards, so there is no strong incentive for private investment today. Carbon taxes could play an important supplementary role in funding research and development, but they are not the primary fix.

Indeed, putting a high price on carbon first, then hoping that alternative technology will catch up, is not a sound policy. Until the technology is ready to compete on its merits, carbon taxes will simply bleed the economy, while providing no real benefit to the climate.

After 20 years of wasted effort, we can no longer afford to squander more time continuing on this road to nowhere. We can only hope that December's failure will be the jolt we need to once and for all drop the Rio-Kyoto-Copenhagen approach and start tackling climate change effectively.

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