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How Montreal Could Save Us From the Mire of Kyoto

A Tale of Two Protocols

By NIRMAL GHOSH

The two protocols stand in stark contrast. But the future of our world as we know it, depends on them.

The Kyoto Protocol sets binding targets for 37 industrialized countries and the European community, for reducing greenhouse gas (GHG) emissions, amounting to an average of five per cent against 1990 levels over the five-year period 2008-2012.

But the USA – at an estimated 20 tons of carbon dioxide (CO₂) per capita the world's biggest GHG emitter - has not ratified it. (Australians recently exceeded Americans in per capita emissions, but on total volume remained modest in comparison. India's emissions are at around 2 tons per capita).

Talks in Bangkok this month aimed at reaching an agreement for post-2012 emission cuts to curb global warming, ended in trouble, with developed and developing countries disagreeing on who must make efforts to cut their emissions, and by when.

Related to that is the central issue of funding for compensation and adaptation.

Developed countries with only a few exceptions – like Norway which offered up to a 30 per cent cut in its emissions by 2020 – were unwilling to commit to deep emission cuts, or to the financial support which developing countries will need. Each is waiting for the other to commit. And with the absence of commitment from the USA which is waiting for domestic legislation, in the shape of the bill currently being debated in the Senate, the outcome of the international talks remains uncertain.

If emissions of GHGs - the main driver of global warming - continue to rise, climate change will reach dangerous and likely catastrophic levels in around 40 years. Human-induced global warming is accelerating, partly driven by the feedback effect; melting permafrost for instance releases methane, a powerful driver of global warming.

A rise of 2 degrees Celsius by 2050 is inevitable if radical measures are not taken immediately to cut emissions. Developed countries need to cut collective emissions by between 25 and 40 per cent of 1990 levels by 2020. Even the most ambitious offers at Bangkok failed to meet that mark.

So far, emission cuts under Kyoto have been well short of the target. Some climate change experts and thinkers, say Kyoto is clearly a failure.

The Kyoto Protocol covers a basket of 12 gases, and only deals with emissions of the total basket, not individual substances. It also does not deal with reducing consumption.

The Montreal Protocol on Substances that Deplete the Ozone Layer, has specific control measures for phasing out the use of specific ozone depleting gases.

The Montreal Protocol is the only international environmental treaty to which every single country on the planet has signed up. It is also arguably the most successful international environment treaty ever.

The Montreal Protocol was established in 1987 after the hole in the planet's protective ozone layer was discovered. It offers concessions and grace periods to individual countries to assist in phasing out ozone depleting substances (ODS).

Since 1991 to July 2009 the Multilateral Fund in Montreal, has disbursed US \$2.3 billion to finance the phase out of ODS. The issue is huge and complex; ODS have been – and in many cases still are – used in hundreds of applications covering several industries, directly affecting hundreds of thousands of jobs, and impacting millions.

Because ODS are also drivers of global warming, the phase out of chlorofluorocarbons (CFCs) – the original villain and destroyer of ozone – has yielded significant benefits in terms of slowing global warming. Dollar for dollar and ton for ton, phase outs under the Montreal Protocol, besides stabilizing the loss of ozone, has delivered four times the benefits in reducing GHG, than emission reductions under Kyoto.

Kyoto deals with huge volumes. Montreal deals with smaller volumes – but the gases pack more global warming punch.

Under Montreal, CFCs have been steadily replaced with a family of gases called HCFCs – which also deplete ozone and are also GHGs. HCFCs are now being phased out at staggered rates around the world.

Their replacement – a family of gases called HFCs (hydrofluorocarbons) – does not harm the ozone layer at all. But there's a catch, and a big one – HFCs are powerful drivers of global warming.

But HFCs, as greenhouse gases, are under Kyoto, not Montreal.

Kyoto's focus is on CO₂ and methane, which are the two big drivers of climate change. For Kyoto, HFC is a minor gas at this stage. So efforts to phase out HFCs are in danger of being lost in the wider jungle of Kyoto, where battles are being fought on a larger political and economic scale and in excruciating complexity.

But with the sustained boom in purchasing of appliances like air conditioners and refrigerators in China and India, HFC consumption is skyrocketing.

Currently, HCFs heat-trapping contribution to global warming is less than 1 per cent that of CO₂. But according to a recent report by Dutch and US-based scientists, in the worst case scenario, the use of HFCs could cause global warming equivalent to the impact of between 28 – 45 per cent of emissions of carbon dioxide by 2050.

'HFCs present a significant threat to the world's efforts to stabilise climate emissions' the report's lead author Dr Guus Velders of the Netherlands Environmental Assessment Agency, has said.

At the UN Convention on Climate Change (UNFCCC) talks in Bangkok this month, Mauritius and the Federated States of Micronesia, followed by the US, Canada and Mexico, tabled a proposal to add HFCs to the basket of controlled substances under the Montreal Protocol.

They proposed establishing a phase-down schedule for HFCs with a grace period for developing countries, with full incremental cost funding through the Multilateral Fund to assist developing countries in the phase-down. Compliance would still have to be reported to the Kyoto Protocol or its successor.

The logic of such a move is simply that Montreal has delivered, while Kyoto has not. HFCs have been created by Montreal, so it is Montreal which should deal with them. Plus, stakeholders in HFC production to consumption chain, are the same as those with whom the Montreal Protocol is already dealing with.

There is an emerging consensus that the move should be made. The European Union supported the proposal at Bangkok. It has strong support from independent environmental non government organizations.

Opposition is expected from India and China which have both invested in HFC production and use. Also, the new approach will have legal ramifications. All countries will have to ratify the changes in both the Kyoto and the Montreal Protocols. The issue will be discussed next month at the Montreal Protocol's conference of parties in Egypt - a meeting it would do the world well to watch closely.

Moving HFCs from Kyoto to Montreal is not as simple as it sounds. But it is one way, supported by the logic of science and the proven track record of the Montreal Protocol, to make real progress on curbing global warming rather than watch the Kyoto Protocol and the UNFCCC fall apart as melting ice caps, rising seas, acidifying oceans and extreme weather together savage our world.

At worst, it will buy us time.

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