

Kyoto: A Few Months, Then The Truth
By Guido Guidi, 13 Feb 2009

With minuscule if any expected practical effects, and a prohibitively expensive price tag, no wonder the Kyoto Protocol has elicited little enthusiasm left, right and centre of the climate debate. And at times, it has even looked simply too easy to hijack for many interests that have little to do with climate and/or the environment. For example, the whole European emission trading market scheme has been rather more successful as yet another chance for financial speculation, than as a beaconing example for sustainable development policies.

And yet, future "Sons of Kyoto" will likely be even more glorified, ever more ineffective version of the original Protocol. There is still a little ray of hope though, because in between one and the other International Conferences the Global Warming debate could be finally and definitively settled, with a return to the good old days when Earth's climate could be analyzed in a more objective manner. Here's why.

In recent years, atmospheric carbon dioxide has been under round-the-clock watch, and global temperature too. Both have increased for a relatively long time, although with very different trends, with temperatures even showing a rather timid cooling during the last decade. Could this be enough to tip the balance of evidence against anthropogenic global warming? Maybe not, as the two factors might still be linked some other way within the vast, mostly unknown complexities of climate dynamics.

In any case, before even trying to understand how carbon dioxide may affect temperatures, we should perhaps investigate the anthropogenic and natural variabilities of this very common gas. The problem is not trivial: palaeoclimatic studies clearly show that high- and low-frequency past climatic changes have led to important changes in atmospheric CO₂ concentration. And in all circumstances, temperatures have increased before carbon dioxide concentrations. Understand exactly how much our emissions actually contribute to measured CO₂ increases could therefore be much harder than previously thought ...unless that is, if something truly extraordinary were to provide us with a key to the solution.

Ironically, such an opportunity might be presenting itself due to the currently disastrous and apparently ever-worsening economic situation. For several months we have been hearing of drastic declines in industrial production. Percentages are nightmarish, with some sectors (especially among those that produce the most CO₂ emissions) crashing by a minus 50%. With consumption going down as well, this crisis might drastically reduce emissions, more than any international agreement ever will.

The question is then: what will happen to the rate of growth of CO₂ concentration into the atmosphere? Interesting scenarios may be unfurling before our eyes. Let's make some hypotheses.

Imagine at first if CO₂ will stop growing, or decrease significantly but without significant changes in temperature trends. That would mean Kyoto and its Sons deserve to be trashed, as our activities would be shown as capable of changing carbon dioxide concentrations but not temperatures, and therefore not the climate.

Think instead if CO₂ measurements keep growing, and temperatures continue to fluctuate following natural climate forcings. That too would mean Kyoto and its Sons deserve to be trashed, as CO₂ variations would demonstrably be primarily a response to natural temperature variations, starting from the current interglacial stage and the exit path from the temporary cooling known as the "Little Ice Age".

Third and last option, if CO2 concentrations stop growing and temperatures keep falling or remain stable, even when the Sun and the oceans - largely responsible for the recent, slightly cooling phase - will have had time to run through one of their cycles, then and only then the real impact of anthropogenic global warming might finally become clear. It would mean that the post-Kyoto agreements have to be implemented rather seriously, that is with little or no political and financial speculation.

We could truly be on the verge of very interesting times for CO2 and the climate, and some hard facts could begin to show in the very next few months. I can't wait to see how it all unfolds.

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