

# After Kyoto

*by Sir John Houghton*

In the early hours of 23 July 2001, 178 nations meeting in Bonn, Germany, agreed on the rules of the Kyoto Protocol. The only significant nation left out of the agreement is the United States who, although the country with the largest emissions of greenhouse gases, have continued to refuse to participate in the agreement. That agreement was reached was a triumph for diplomacy, especially for the crucial roles played by the European Union, and an impressive tribute to the statesmanship of the other nations of the world, which, against all predictions, decided that it was indeed time to act on the most critical environmental problem of the 21st century -- to confront global warming and reduce emissions of greenhouse gases. As New Zealand delegate Peter Hodgson said, "We have delivered probably the most comprehensive and difficult agreement in human history".

The Kyoto Protocol is a component of the Framework Convention on Climate Change (FCCC) established at the Earth Summit in Rio de Janeiro in 1992 (President George Bush - George W's father - signed the Convention for the USA) and subsequently ratified by 180 nations including all the major nations of the world. Under the Convention all nations agree to take action to reduce emissions of greenhouse gases. A particular obligation is put on developed countries, whose industrial development has benefited from abundant energy from fossil fuel burning, to take the lead in such action.

Five years later in 1997, the principles of the Kyoto Protocol, the first to be established under the FCCC was agreed by the countries who were Parties to the Convention. This Protocol commits developed countries to reduce their emissions of greenhouse gases by an average of 5.2% by 2012 compared with 1990 levels. It was agreed at Kyoto that, in addition to direct reductions of emissions by nations, three mechanisms could contribute to the necessary reductions, namely:

1. credit would be given for carbon sinks such as forests that absorb carbon from the atmosphere.
2. a Clean Development Mechanism (CDM), through which developed countries can invest in climate-friendly projects in developing countries and receive credit for the emissions avoided by these projects.
3. an international emissions trading regime, which enables developed countries to buy and sell emissions credits amongst themselves, and a Joint Implementation regime, under which OECD countries can invest in projects in countries with economies in transition.

Since 1997, there has been a great deal of debate about the detailed rules applying to these mechanisms particularly those concerning how they are to be monitored and the degree of credit that might be allowed under each of them to any given nation. It was disagreement on some of these issues that prevented agreement being concluded at the meeting of the Parties in the Hague in late 2000.

The withdrawal by President George W Bush from the Kyoto Protocol in March of this year had the effect of raising the political profile of the Climate Change issue and of concentrating attention on it. It had been argued that the Protocol was flawed in various respects and also that its contribution to the reductions that's were almost certainly going to be necessary in the longer term was going to be small. However, neither the US or any other country has put forward any

alternative proposal to the Kyoto Protocol. Rejecting it would undo the work of 10 years of negotiations; the collapse of such a fundamental international agreement would discredit the entire multilateral process.

Further, it became increasingly apparent that without legally binding commitments of the kind defined by the Protocol, however imperfect the definitions might be, very little progress would be made towards the mitigation of the deleterious impacts of anthropogenic climate change. Further it was also realised that, although the reductions demanded by the Protocol might appear to be small, they were still demanding - but not too demanding to be unachievable. And they will bring emissions from developed nations substantially below business-as-usual projections.

At Bonn various issues concerning what is allowable under the mechanisms of the Protocol were resolved. In counting the contribution from sinks, eligible activities will include revegetation and the management of forests, croplands and grazing lands. Individual country quotas for sinks were set such that sinks will account for only a fraction of the emissions reductions that can be counted towards the Kyoto targets. For the CDM, the rules specify that energy efficiency, renewable energy, and forest sink projects can qualify, while developed country Parties are to refrain from using nuclear facilities in the CDM. The Bonn agreement emphasizes that all three of the mechanisms should be supplemental to domestic action and that domestic action shall thus constitute a significant element of the effort made by each Party. Under the agreement, arrangements are set up to strengthen financial and technological support to developing countries to enable them adapt to climate change impacts, obtain clean technologies, and limit the growth in their emissions. The Protocol also includes a compliance mechanism. For every ton of gas that a country emits over its target, it will be required to reduce an additional 1.3 tons during the Protocol's second commitment period, which starts in 2013. Additional compliance procedures and mechanisms will be developed after the Protocol enters into force.

Some have argued that the Bonn agreements weaken the effective value of the Kyoto targets - possibly by as much as several percentage points. However, the immediate importance of the deal lies less in its contribution to the actual abatement of greenhouse gases than in its establishment of the architecture for an international regime. The protocol's medium-term effect will be as a technology-forcing instrument that gives industry the certainty it needs to begin production of the clean technologies of the future. No less importantly, it sets up a whole new institutional framework for the dissemination of knowledge and experience on the causes and effects of climate change and the solutions.

The next step is for developed country governments to ratify the Protocol so that it can enter into force as quickly as possible - preferably by September 2002 when the Rio + 10 Conference meets in South Africa. A further imperative is to continue effective dialogue with the USA so as eventually to bring them on board. Strong voices in the US are recognising the urgency of the problem and urging that the US contribute constructively to the international negotiations regarding climate change.

Realisation of the Kyoto Protocol will only be a beginning - although a very important beginning - to what is going to be required to combat the deleterious impacts of climate change. To stabilise the concentration of carbon dioxide in the atmosphere and hence to halt climate change, as is required by the Objective of the FCCC, global emissions of carbon dioxide will need to be reduced substantially below 1990 levels before the end of this century. This means that developed countries will face much larger reduction targets in the years following the Kyoto Protocol that runs until 2012. For instance, the 22nd report of Royal Commission on Environmental Pollution, indicates that around 60% reductions below 1990 levels will be needed by the year 2050 (refer to RCEP Web site) and suggests how such reductions might be

achieved. The technology required for such changes is already available although a great deal of development is required to bring it on stream. Because of the time taken for necessary planning and implementation of the technology, action to begin the process must be taken now.

## Links

IPCC

<http://www.ipcc.ch/>

RCEP

<http://www.rcep.org.uk/>

Global pollution and climate change (JRI briefing)

<http://www.jri.org.uk/brief/climatechange.htm>

## Credits

This briefing has been prepared for The John Ray Initiative by Sir John Houghton. Sir John Houghton is the chairman of JRI. He is co-chairman of the Scientific Assessment Working Group for the Intergovernmental Panel on Climate Change, and a member of the Government Panel on Sustainable Development, and from 1991 to 1998 was Chairman of the Royal Commission on Environmental Pollution. He has written several books including *Global Warming: the complete briefing* and *The Search for God: can science help?*.