RECENT DEVELOPMENTS: June 2006

Climate Change: Already Too Late?

We preface this special Recent Developments Bulletin with a candid acknowledgment that the global climate is indeed changing, although, like others, including the scientific community, we do not know to what extent nor exactly why.[1]

This Bulletin has been triggered by the myriad of unresolved concerns that lay on the table after a marathon month of international climate-related events. These were:

- the 14th annual session of the UN Commission on Sustainable Development in New York on 1 – 12 May 2006
- the first "Dialogue on Long-Term Cooperative Action" in Bonn on 15 – 16 May 2005
- the 24th sessions of the FCCC Subsidiary Bodies in Bonn on 18 – 26 May 2006

The topics of energy, energy security, oil prices and the respective future roles of fossil fuels and renewables pervaded much of last month's debates. Also, the mention of nuclear power reportedly caused a few tensions.

The question raised in this Bulletin is whether it is already too late for the global community to combat climate change by the measures specified and in the time frame hoped for by the 1992 Framework Convention on Climate Change (FCCC).

> The drafters of the FCCC supposed that reducing GHG concentrations to a certain level would actually be sufficient to redress climate change. Their aim was noble and remains so. However, the underlying supposition was always a little dubious and needs to be revisited.

Section 2 of the FCCC stated:

> *"The ultimate objective of this Convention ... is to achieve ... stabilisation of greenhouse gas [GHG] concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system. Such a level should be achieved within a time frame sufficient to allow ecosystems to adapt naturally to climate change, to ensure that food production is not threatened and to enable economic development to proceed in a sustainable manner."*

The obstacles to taking collective action to combat global climate change are not dissimilar to those that have stood in the way of achieving global energy security. In addition, there are some major political, technical and practical obstacles that we identify in this Bulletin.

Obstacles to Action on Energy Security

Why have the years of international producer-consumer dialogue failed to come up with solutions to the energy security problem? The main reason is that, after the discussants return home, they have typically run into intractable domestic obstacles. These fall into four main categories:

- first, it has not been easy to create and maintain the right investment conditions to induce investment in new energy projects and in more efficient energy technologies
- secondly, most countries have outdated or sub-optimal domestic regulatory practices that were developed with local (and not

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- We rely principally on the 2001 Third Assessment Report of the Intergovernmental Panel on Climate Change (IPCC).
- Subsequent research provides even stronger evidence of the climate change patterns described in that report: see for example Report of the International Scientific Steering Committee, "Avoiding Dangerous Climate Change", International Symposium on the Stabilisation of Greenhouse Gas Concentrations, Exeter, UK, May 2005 ("ISSC Report").
- See also W Steffen, "Stronger Evidence but New Challenges: Climate Change Science 2001 – 2005," Australian Department of the Environment and Heritage, Australian Greenhouse Office, Canberra, Australia, March 2006.

global) technical, economic, social and environmental goals in mind

- thirdly, all countries have encountered internal differences in thinking amongst officials of concerned ministries (foreign affairs, trade, finance, energy and environment officials) which have hindered the adoption of a well-balanced, "whole of government" approach and

- finally, domestic interests, domestic politics and nationalist tendencies have generally tended to prevail when it has come to a choice between domestic and global priorities – a tendency which is, if anything, increasing (in 2006, signs of "resources nationalism" have unfortunately reappeared: the Russia / Ukraine gas pipeline dispute; the unilateral alteration of fiscal terms in Venezuela; the unilateral assertion of government control of energy assets in Bolivia).

With the Gleneagles Summit of G8 leaders last year, both climate change and energy security finally reached the top of the political and foreign policy agenda. There is, however, very little that can actually be done about long-term energy security on a collective level. The responsibility rests with individual countries to develop their own energy diversification strategies.

Obstacles to Action to Combat Climate Change

Domestic obstacles also affect the taking of action to successfully combat climate change. In addition, successful action may require far greater political and economic sacrifices than any nation appears likely to authorise.[2]

In particular, the two largest developing countries, China and India, emphatically reject any suggestion that their national interests or their economic development should be curtailed by measures to prevent global climate change.[3]

For them, understandably, development is the overriding concern, which is why they have joined with Australia, Japan, South Korea and the United States in the Asia-Pacific Partnership on Clean Development and Climate (AP6).[4]

Despite doubts that clean and affordable energy technologies can be found to reduce GHG emissions on the scale and within the time frame necessary to solve the climate problem, this does not mean that efforts to do so should not be intensified. However, in market economies (that is, most of the world), the selection of technologies is for commercial firms to decide, not for governments to ordain. The selection by investors of clean and affordable energy technologies entails two main activities:

- weighing up all country-specific variables and

- carrying out a cost / benefit analysis of the various technology options, their respective "externalities" and their "timing" factors.

Country-specific variables include factors such as indigenous fuel availability, transport and grid capacity, affordability, regulatory constraints (or the lack of any), the general condition of the host economy as well as local environmental factors.

In the short term, the "dash for gas", particularly an acceleration of LNG trade as promoted by the APEC Gas Forum, will bring significant emission reductions in gas consuming countries.[5]

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[2] Undaunted, G8 leaders at the Gleneagles Summit stated in their 2005 communiqué: *"We reaffirm our commitment to the UNFCCC and to its ultimate objective to stabilise greenhouse gas concentrations in the atmosphere at a level that prevents dangerous anthropogenic interference with the climate system."*

[3] *"We are developing countries, we have our own agendas for our development activities, so we cannot give any promise, any commitment to reduce further our emissions",* Mr A Raja, Indian Minister for Environment, press conference at the launch of AP6, Sydney, 12 January 2006.

[4] *"Climate change is not only an environmental issue but also a development issue. The essence of addressing climate change is to achieve sustainable development. The key lies in innovation and the transfer of technology information and to concrete international cooperation ... We believe this new Partnership will further facilitate international cooperation on energy technology and with the framework of the Climate Change Convention we are ready to enhance scientific and technological cooperation with other countries in the world and work together to address energy issues to pursue sustainable development and address challenges posed by climate change",* Mr Liu Yongxing, Chinese Ambassador to Laos, press conference at the initial announcement of AP6, Vientiane, Laos, 28 July 2005.

[5] For details of the APEC Gas Forum initiative, see our April 2006 Recent Developments Bulletin on our website.

Nuclear power generation and clean coal technologies also offer early potential for reduction from the business-as-usual case. Nuclear generation has of course been a well-proven technology for decades but continues to be demonised for non-climate related reasons that we do not go into here. Germany's 1998 policy decision to phase out nuclear power generation seems increasingly questionable in both economic and climate change terms.

In the case of clean coal, the main focus is on CO2 emissions abatement, geosequestration and more efficient coal-fired generation technologies. Historically, most research and development work has taken place at individual economy level.[6] Recently, initiatives have multiplied at international level.[7]

In the longer term, renewables, methane hydrates and "the hydrogen economy" may all make a substantial impact on emission levels.

Even so, all of the currently known low emissions energy technologies might not be fully effective when it comes to actually regulating the climate system.

The Dubious Supposition Underlying the FCCC's Call for Action

The central tenet of the FCCC, that climate change (irrespective of its causes) could be redressed by the treaty parties reducing GHG concentrations, was a bona fide value judgment arrived at by a process of negotiation. However, it was based on a dubious supposition.

There was no direct correlation between emissions **reduction** and climate system improvement as envisaged by the treaty parties.

This is the opposite of the proposition that climate change is occurring and that humankind is one of the causes. The question here is whether the proposed remedy (assuming it could be administered) could actually induce the desired result.

[6] For example, the J Coal Program in Japan; the Clean Energy Technology Road Map in the US; the Coal 21 Program in Australia.

[7] For example, the IEA Clean Coal Centre; the APEC EGCFE; the Carbon Sequestration Leadership Forum; and, most recently, AP6.

Recent scientific consensus is that further changes in climate are unavoidable.[8] The difficulty, as we understand it, is that GHG concentrations will continue to rise even with slowing emissions because of the long lifetimes of trace gases in the atmosphere. It could take centuries before concentrations stabilise at a "safe" level.

In the meantime, there is still "no consensus on the appropriate portfolio of policies that are required to address global climate change successfully." [9]

Too Little, Too Late

It is self-evident that climate change is a multi-dimensional problem on a global scale. On the evidence to date, it is impossible for the parties to the FCCC to do anything on the scale and within the time frame that they originally envisaged, even if they were certain what policies and measures would work.

It is even more impossible for any country or region **acting alone** to redress climate change simply by regulating domestic GHG emissions or by implementing domestic GHG emission trading schemes. Europe's recent awkward experience has also highlighted the risks of poorly designed trading schemes.

This is not to suggest that a wide range of mitigation measures should not be taken against climate change. Nor is it to suggest that measures should be postponed because of lack of scientific certainty. Indeed, there is a stronger than ever imperative to keep all options under the closest of scrutiny and to move ahead

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- According to the IPCC 2001 Assessment Report, stabilization of GHG concentrations would reduce global warming but by an uncertain amount.
- According to the ISSC Report (footnote 1), *"Major investment is needed now in both mitigation and adaptation. The first is essential to minimise future impacts and the latter is essential to cope with impacts which cannot be avoided in the near to medium term."*
- According to the joint statement of 11 of the world's leading scientific institutes in June 2005, *"Even if greenhouse gas emissions were stabilized instantly at today's levels, the climate would still continue to change as it adapts to the increased emission of recent decades. Further changes in climate are therefore unavoidable. Nations must prepare for them."*

[9] Pew Center for Global Climate Change, "Agenda for Climate Action", Washington DC, USA, February 2006.

progressively with a "no regrets" approach. In this regard, the Pew Center's "Agenda for Climate Action" is worthy of close study.

The scientific community is not to be blamed for any misunderstanding. This is mainly a consequence of a huge number of parties having to negotiate a very difficult international treaty under immense pressure some 15 years ago.

The coming into effect of the FCCC nonetheless has been followed by a long period of poor communications. This has been caused by a combination of scientific complexity, information overload, some misinformation, considerable over-optimism about some of the solutions, community mistrust of politicians and deep forebodings about what lies ahead.

Some Concluding Comments and Recommendations

The global climate system simply cannot be susceptible to regulation by the manipulation of only one variable, by the reduction of GHG emissions. It is not right to hold out false hope to people that climate change can be redressed in this way. With climate change, there is no such thing as a quick fix.

We believe that, in future climate change negotiations, Section 2 of the FCCC should be reviewed. However, given the difficult history of the negotiations and the stickiness of international negotiating processes, we do not see this happening anytime soon.

On the positive side, against the backdrop of the FCCC and with the reaffirmation by G8 leaders of their commitment to it, there is a greater willingness by both governments and industry to engage in cooperative action to both combat and adapt to the impact of climate change. This is the way of the future.

Our thoughts about future action are:

1. From now on, as well as considering measures to reduce GHG emissions, governments should intensify their focus on measures to adapt to the inevitable consequences of a warmer global climate.
2. One advantage of adaptation measures is that they can be taken by each nation independently without the need to consider international implications or to consult others (not forgetting that nations with the least resources have the least adaptive capacity and will need assistance from those with plenty).
3. Governments should be more proactive in communicating the latest climate-related facts to communities.
4. A worthwhile immediate step for all countries would be to introduce a mandatory system for measuring and reporting GHG emissions. Regulation and trading of emissions could follow after the technical aspects are more commonly understood.
5. Energy industry participants should be actively building knowledge platforms, accumulating intellectual property and establishing collaborative global networks to ensure that they can take advantage of more efficient energy technologies as soon as they are identified.
6. Energy industry participants should also keep a close lookout for domestic regulatory developments that could render traditional energy technologies politically unacceptable and phase them out of business.
7. Both governments and industry participants should cooperate more fully in both combating and adapting to the impact of climate change.

Although it is almost certainly too late to achieve the original aims of the FCCC, the climate challenge is only just beginning.

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