

# Don't forget the vulnerable

Regardless of what happened at the Durban climate summit, immediate action is required on climate change, and poor nations must be treated fairly.

As this Editorial is being written, the United Nations COP17 negotiations in Durban have barely begun. Whether the summit will turn out to be a damp squib or a success of sorts will soon become clear.

The posting on a Russian server of more hacked e-mails from the University of East Anglia's Climatic Research Unit (CRU) before the conference opened will have had little effect beyond wasting the valuable time of scientists. Of far greater concern was the pre-emptive strike by Canada's Minister of the Environment Peter Kent: "We will not make a second commitment to Kyoto — we don't need a binding convention." Canada was not alone among developed nations in opposing further major cuts in greenhouse-gas emissions, and some of the biggest emitters in the 'developing world' looked likely to follow suit. Before the meeting, even Barack Obama was criticized by UK Climate Minister Greg Barker for failing to honour previous pledges on climate change mitigation.

Some may have found the UK's position in the run-up to Durban rather smug. Nevertheless, according to recently released figures, UK carbon emissions have already been cut by 25% on 1990 levels. Ministers claim that policies already in place will achieve cuts beyond the 34% target set for the first 15 years under the 2008 Climate Change Act. They acknowledge, however, that significant progress beyond 2020 will require the deployment of innovative technologies such as carbon capture and storage, as well as tackling 'hard-to-treat sectors'.

Announcing the publication of the government's Carbon Plan, the UK's Secretary of State for Energy and Climate Change, Chris Huhne, wrote in a prepared statement that "the Carbon Plan shows the UK is walking the walk". Critics will note, however, that the UK's 2050 target and carbon-budget system so far exclude international aviation and shipping emissions, and that the UK imports many of its consumer goods, thereby effectively 'exporting' carbon emissions. Some may suspect smoke and mirrors. Actually, however, assessing the carbon footprint of products can be a tricky business, as shown by Katharina Plassmann on page 4.

A large section of the UK's Carbon Plan focuses on road transport. This theme is taken up by David Howey (page 28) who critically discusses how switching to alternative

cars and fuels should reduce Europe's oil dependency, increase fuel security and reduce carbon emissions. As he notes, a major challenge will be to persuade consumers to part with their hard-earned cash and switch to more energy-efficient vehicles. Broader issues of European policies aimed at cleaning up travel, whether by land, sea or air, are discussed by Sonja van Renssen (page 11), who also takes a close look at another 'hard-to-treat sector' — energy production — focusing on the pros and cons of different energy decarbonization scenarios contained in the European Commission's energy roadmap (page 19). This includes the possibility that electricity will power the majority of passenger cars and light vehicles by 2050, and the need to expand renewable energy sources and modernize the power grid.

Perhaps the biggest schism likely to be exposed in Durban is that between the developed nations — the economies of which benefitted enormously from 'dirty' energy production and consumption for decades — and the poorer nations of the developing world. An interesting case in this regard is that of China. When the Kyoto Protocol was adopted back in 1997, China was not the industrial and economic powerhouse that it is today. It is now the world's biggest greenhouse-gas emitter — albeit with low *per capita* emissions — and an economic force to be reckoned with. However, David Victor (page 24) argues that nations such as China and India, which are highly dependent on emission-intensive manufacturing, may be particularly hard hit by a global system for emissions trading.

Many poor nations were understandably angry and disillusioned before Durban. José María Figueres, former president of Costa Rica, called on representatives of the poorer countries likely to take the brunt of climate change impacts to refuse to leave the talks until their demands were met — or at least until a fair and equitable agreement was reached.

Certainly, something needs to be done, and time is of the essence. As shown by Glen Peters and co-workers on page 2, global carbon dioxide emissions from fossil-fuel combustion and cement production have reached a record high, despite the worldwide global financial crisis of 2008–2009. Moreover, as discussed by Robert Vautard and Pascal Yiou (page 26), climate change

can now be robustly attributed to human activities using different datasets and models, despite uncertainties in the processing of observational data.

Some rich counties are playing ball — at least for now. On page 20, Anna Petherick asks what can be learned from Australia's newly passed carbon tax legislation, aimed at cleaning up one of the world's dirtiest economies in terms of greenhouse-gas emissions. One of the points made is that if Australia can stomach the pain of carbon pricing, then other rich countries should be able to do the same. Whether they will be inclined to do so is another matter, and Australia's opposition party has already said that it will repeal the policy at the earliest opportunity if it wins the next parliamentary election.

Limited mitigation will lead to greater or more likely climate change impacts, examples of which can be found among the research papers published in this issue.

The consequent need for adaptation has been a growing theme in climate negotiations, and significant international funds and allocation mechanisms are available to support adaptation planning. Indeed, unlike in other areas such as mitigation, expectations of real progress on adaptation in the run-up to Durban were high. However, the best options are not always obvious. For example, some of the poorest in the world live on islands that could be severely impacted by sea-level rise and the direct effects of global warming. On page 8, Jon Barnett and Saffron O'Neill highlight the danger that resettlement of people living on islands might make them more, not less, vulnerable owing to adverse social and environmental outcomes. They instead argue that other kinds of migration, such as increasing voluntary labour mobility, may often have better adaptation outcomes.

We should all hope that, against the odds, good progress has been made in Durban. The next major United Nations climate change conference (COP18/CMG8) will take place in Qatar from 26 November to 7 December 2012, after a preparatory ministerial meeting to be hosted by the Republic of Korea. Before then, in the summer, the United Nations Conference on Sustainable Development (Rio+20) will take place in Brazil, with poverty eradication and the achievement of green economies being major themes. □