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No more hot air

European heads of state gathered in Brussels today must show they are serious about climate change.

When the European Union's 27 heads of state meet today, they are expected to endorse an energy policy for the continent whose implementation will provide the ultimate test of Europe's ability to meet the challenge of climate change.

European leaders such as Tony Blair and Angela Merkel have talked a good game on the climate-change issue for many years. But Europe's actions to confront stubborn, continued growth in greenhouse-gas emissions have been far less impressive. Today's rhetoric will doubtless imply that this is about to change. However, it is the actual implementation of the plan, rather than the flourish with which it is presented, that will show whether the European Union (EU) is serious about cutting emissions. Sceptics on both sides of the Atlantic think it isn't — and will be watching closely.

Most Europeans want their elected leaders to rise to the challenge and take effective action. They understand that this will involve difficult lifestyle choices regarding, for example, the size of the cars they drive and the amount of energy they waste at home. People are prepared to make these choices provided there is a sense that the burden is being fairly shared.

The heads of state will today discuss an action plan that was drawn up by the European Commission in January and endorsed at a meeting of EU environment ministers last month. It commits the EU as a whole to mandatory reductions in greenhouse-gas emissions of 20–30% from 1990 levels by 2020 (see *Nature* **445,** 234–235; 2007).

The plan would stipulate a 20% reduction in emissions and allow for a more arduous 30% cut if other developed countries (primarily the United States) agree to take mandatory action to reduce their own emissions. It also incorporates a number of secondary, legally binding targets, such as the generation of 20% of electricity from renewable sources by 2020.

Given doubts over the true potential of renewable energy sources and other uncertainties, the mandatory nature of the proposal has faced strenuous opposition. However, voluntary measures have done little to change behaviour over the past two decades, so the EU's leaders must now endorse a package of mandatory measures — if only to back up their own well-worn rhetoric on the importance of the climate-change issue. Such mandatory commitments are clearly needed to provide the incentives that will increase research and investment in clean-energy technologies, energy efficiency and the other steps needed to reverse the growth in emissions.

The national circumstances of the leaders gathered in Brussels are varied. Italy, Spain and Portugal, for example, are failing to meet even the modest targets allocated to them as their share of the EU's commitment under the Kyoto Protocol, as the new-found fashion for air-conditioning sends their electricity usage through the roof. These countries, along with the poorer member states in the east, are likely to push for the largest and most intensive energy users — Germany, Britain and France — to bear most of the burden imposed by the energy plan. However, the leaders at the meeting realize how wretched they will all look if no agreement is reached, and can therefore be expected to find one.

"Most Europeans want their elected leaders to rise to the challenge and take effective action on climate change."

The current logjam in international climate diplomacy will only be broken by decisive European leadership on the issue. Anything less will recall the grotesque embarrassment that accompanied EU hesitation in the Balkans in the 1990s, when only US intervention prevented a bloodbath.

The climate crisis is a different type of challenge, but is no less momentous for all that. It provides a timely opportunity for the EU to prove that it is capable of leading the world in an issue of global importance. This will require technological innovation, societal backing, economic adaptability and, above all, political will. There is no reason — yet — to conclude that the EU isn't equal to the task. ■

Tackling tuberculosis

There is a dangerous gulf between the global programmes to fight AIDS and TB.

Tuberculosis (TB) is one of the world's most lethal diseases, and is expected to kill almost 2 million people this year. But it has a relatively low public profile. Worse still, efforts to research, prevent and treat the disease are entangled in an unseemly rivalry with corresponding approaches to AIDS.

TB has been with us for centuries, and has probably already claimed many of the people in the West who are genetically susceptible to it. By far the greatest prevalence today is in Africa and India, where susceptibility to TB often goes hand-in-hand with HIV infection (see *Nature Med.* **13,** 263; 2007 and www.nature.com/news/specials/tb).

Yet the response to the march of the disease in poor countries has been patchy. The World Health Organization (WHO) has led a moderately successful effort to offer basic treatments to as many people as possible, using 40-year-old drugs of limited effectiveness. The US National Institute of Allergy and Infectious Diseases sponsors by far the world's largest TB research programme, and the Bill & Melinda Gates Foundation is making a determined push to reboot efforts to translate research into clinically useful drugs and vaccines.

However, all this activity is modest in relation to the scale of the problem. TB research programmes are estimated to be worth about $300 million worldwide — less than one-tenth of the amount devoted to AIDS. Important questions, including how to develop better ways

of detecting the disease cheaply and reliably, and how to assess the effectiveness of new drug combinations, go unanswered.

But it isn't just the lack of funding that makes TB researchers feel like the poor relations in the global health family. Difficulties in working alongside the better-funded efforts to tackle AIDS permeate many aspects of TB prevention, treatment and research at all levels, from the clinics of South Africa's most impoverished townships to the headquarters of the WHO in Geneva.

Treatment for TB is commonly dispensed in developing countries through long-established public-health clinics, whereas AIDS treatment often comes through separate, dedicated facilities. This division does nothing for the patients suffering from both diseases.

As for research, there has been inadequate collaboration between the relatively small number of scientists who devote their careers to studying TB and the far larger community working on AIDS. Yet both groups could surely benefit from each other, especially with regard to improving their understanding of the interaction between the two diseases.

But it is perhaps at the bureaucratic level that this division is most pronounced. The offices dealing with AIDS and TB at the WHO, for example, have historically enjoyed a difficult relationship characterized by rivalry rather than cooperation.

Steps are being taken to improve this sorry state of affairs. Treatment is successfully being integrated on the ground in South Africa and elsewhere, usually one clinic at a time. Researchers from the two fields are working together to study 'immune reconstitution syndrome', a little-understood phenomenon that affects those taking drugs for both TB and AIDS. And at the WHO, outmoded blueprints for the diagnosis and treatment of TB are being revised, with the assistance of staff with backgrounds in HIV treatment. Thanks to the intervention of the Gates Foundation and others, drug and vaccine candidates for TB are entering trials at a reasonably healthy rate for the first time in decades.

There is an overriding need for greater collaboration between AIDS and TB prevention, treatment and research, and this should be implemented at the grass roots wherever possible. But this common-sense remedy isn't, on its own, going to overturn a deeply ingrained division that has taken shape over many years.

Global health provision only really changes when leadership is forthcoming, not just from international organizations but from governments, specifically those that are in a position to lead — in this case, those of the United States, the European Union, India and South Africa. World Tuberculosis Day on 24 March seeks to draw attention to the disease, and provides an opportunity for governments to do just that, by acknowledging the problem and stating what they intend to do about it. ■

The ends of the Earth

International Polar Year 2007 can leave an imprint.

The last time there was an International Polar Year (IPY), the world was a very different place. In 1957, at the height of the cold war, the poles were less a place for intriguing scientific discoveries than for political manoeuvring between the Soviet Union and the United States. Yet 1957–58 marked the third International Polar Year (the first two were in 1882 and 1932) and the first International Geophysical Year — a significant landmark, with hindsight, for global scientific collaboration.

The International Geophysical Year yielded several great scientific discoveries, many of which were inexorably linked to cold-war imperatives. James Van Allen discovered the belts of radiation surrounding Earth with the first US satellite, Explorer I, sent up in response to the Soviet Union's Sputnik. And the US nuclear submarine *Nautilus*, on a top-secret voyage, became the first vessel to visit the North Pole under the ice.

This time round, the political context of the IPY is dominated by climate change. Tasks for the coming year include taking detailed measurements of melting sea ice in the Arctic (see page 133) and a hunt for the best records yet of past climate change in the Antarctic (see page 126).

But scientists seeking support for these missions have got off to a rocky start, at least in the United States, as the result of a budget impasse that briefly froze spending for the National Science Foundation at 2006 levels. By January, last-minute negotiations had yielded an extra $334 million for the agency, including money it needs to grant IPY proposals in the coming year. But many of the scientists involved are still awaiting confirmation that their projects will go ahead, and their frustration is becoming palpable.

Elsewhere, the outlook is more certain. Canada, for instance, has pulled together all the funding for a large international programme to study the circumpolar flaw lead, an area of water that separates the bulk of the Arctic sea ice from the ice at the coast. Canada has also taken a welcome lead in involving indigenous peoples in its research programmes. The interdisciplinary ArcticNet project, based at the Université Laval in Quebec, aims to disseminate information gleaned about changes in the polar regions to the communities that are most directly affected.

"The polar year represents the best chance to get climate-monitoring networks up and running."

These international efforts may alleviate some of the problems that have long plagued Arctic research, such as the decline of meteorological monitoring stations. The collapse of the Soviet Union has caused numerous observing stations to close. One target for the IPY is to upgrade some key sites and monitor them over the long term; the US National Oceanic and Atmospheric Administration, for instance, is upgrading its climate-monitoring laboratory at Barrow, Alaska, and plans to do the same for stations in Eureka, Canada, and Tiksi, Russia. Such observatories are the only way to move forward with collecting the long-term data needed to monitor climate change.

The polar-year celebration represents, among other things, the best chance to get these climate-monitoring networks up and running. Let's hope that the funding difficulties are ironed out in time, and that this opportunity is used to produce a legacy worthy of International Polar Year 2007. ■