

is no different now from what it has always been. Environmental benefits are public purchases made ultimately by a country's voters (as taxpayers or consumers). It is worse than an oversight that this ragbag of policies — some are imaginative — should have been lumped together under the name of "Strategy" without even an attempt to put them in qualitative order of priority. To be sure, there are soothing phrases here and there. The documents say that the government will ensure that "environmental costs and benefits are properly and fully taken into account. So do global warming and the blue butterfly have equal weight?"

There is finally the error of false perspective. Over what period does Britain plan for sustainable development? The documents last week say 20 years, although at one stage the document on biodiversity looks forward to the emergence of new animal species in Britain, from which glacial ice has vanished for only 10,000 years or so. But in reality, even 20 years is too long for safe planning ahead. On a mundane level, Britain's membership of the European Union is unlikely to leave net immigration rates at 0.1 per cent (especially if the cost of sustainability requires further tax increases).

More generally and more important, the calculations suppose there will be no noticeable improvement of people's cleverness, which is amply denied by even recent experience. Those who doubt that have only to consider what sustainable policy the British government would have devised for its coal industry if sustainable development had been fashionable in the 1920s, when output was 250 million tonnes a year. (Ironically, one of the government's chores in the months ahead is to sell the remnants of that industry to whoever will buy them.) In the event, it proved possible to drill for oil in the North Sea instead of mining coal, of which there is plenty still beneath Britain's surface. The best hope that "future generations will be able to meet their needs" remains what it has always been; that future generations will be smarter than their predecessors.

So is the policy now on offer acceptable? The British government will win the approval of the House of Commons after three hours of probably desultory debate — British MPs have other things on their minds — are will reckon that its democratic duty is done. The new documents promise a process of continuing consultation, and of public education, which makes sense. But the years ahead should also be spent in filling in the obvious gaps in a strategy that is too shapeless to be a guide to action and, despite the entrancing detail, too vague to be refined. □

## Hearing for basic science

**US leaders of all disciplines have met to ponder the importance of fundamental science.**

A YEAR ago, US President Bill Clinton offered science and technology a central role in the future of the United States in a White House paper called *A Vision of Change*. Vice-President Al Gore, chief advocate of the electronic

superhighway for data exchange, had clearly had a hand in the document, which spoke glowingly of programmes to enhance US competitiveness in international markets and made clear his support for "strategic research" in such areas as advanced materials and improved manufacturing techniques. It was a dream come true for those in the United States who want a clear policy of government support for new technology, but not everybody was delighted. For many researchers, the president's vision carried another message: that the president does not really understand basic science, research without targets.

In an effort to change at least that perception, the White House Office of Science and Technology Policy (OSTP) has planned for this week a major meeting, called a convocation, as a prelude to a presidential proclamation of the virtues of basic science. Participants — all by special invitation — will by now have spoken on the role of basic research in a variety of contexts — biology, industrial work, national security and economics among them. Scientists, educators and members of the US House of Representatives and Senate whose committees have jurisdiction over science agencies were on the list. So too was John Deutch from the Department of Defense. Senator Jay Rockefeller (Democrat, West Virginia) was on the programme, as were Harold Varmus, director of the National Institutes of Health (NIH) and Neal Lane, head of the National Science Foundation (NSF). Even Vice-President Gore has agreed to attend, perhaps to show that he is not really an unreconstructable technocrat.

What will the meeting have accomplished? It would be naive to think that a single presidential policy statement will reverse the declining budgets of agencies such as NSF or NIH, whose research support is anyway moving slowly if perceptibly towards targeted science. In any case, the exact magnitude of the agency budgets is less important than the long-term benefits to US society of economy of the products of basic research, which are two: understanding and skilled people. From the design of silicon chips (and the software to go with them) to gene therapy and its infrastructure, the administration should by now be clearly aware that US prowess in these and other fields rests squarely on the former and has been won only by the latter. Yet there are already fields in which US industry is cramped for lack of sufficient skill, of the kind that can be acquired only through training by research. The lesson, which should need no telling, is that to skimp on basic research will undermine the goals on which the administration set its heart just a year ago.

In that sense, it is a pity that this week's high-powered gathering has been necessary at all. But the plot may be thicker than it seems. The convocation is the brainchild of M. R. C. Greenwood, associate director for science in the White House, who in a previous life was dean of graduate studies at the University of California at Davis. Greenwood is not only committed to federal support of basic science but also shrewd enough to know that a white paper from the White House may be politically valuable in future budget battles. Indirectly, the great and the good may have been giving evidence to the Congress. □