UK higher education

Cheers but no extra funds for engineering

THE British Government's ambition to redirect higher education towards engineering and physical science has been at least temporarily set back. At a meeting last week (4 June) called by Sir Keith Joseph, Secretary of State for Education and Science, it became plain that other spending ministries were not prepared to contribute by a reduction of their own budgets towards the cost of what the government is proposing.

There is particular resentment among officials of the Department of Education and Science that the Department of Trade and Industry, the chief agitator within the government for an increased output of graduates in engineering and physical science from British universities and polytechnics, was in the event unwilling to back its rhetoric by an agreement that funds should be diverted from its own budget for a new investment in higher education.

Last week, Sir Keith Joseph was asking for an extra £400 million to be spent over the next several years in universities and polytechnics, chiefly on new buildings and equipment for engineering and physical science departments. The government appears to have been convinced that such a development is urgently necessary by the well publicized complaints by engineering companies that they are having to recruit high-technology specialists from overseas and by evidence from within the educational system that the provision of buildings and equipment has for several years fallen short of needs.

In Whitehall, the plan to redirect resources towards engineering and physical science education has for several months been known as "The Switch", in retrospect a galling echo of the title of the 1970s film about confidence trickery, "The Sting". The objective has been to engineer a decisive and, with luck, permanent shift in British higher education towards the preparation of students for work in high-technology industry. The estimated cost of £400 million is predicated on the assumption that it would be better to strengthen and enlarge departments which are already strong (and fully stretched) than to take up unused capacity at other institutions.

Even so, one of the surprises of last week's meeting (attended both by Mr Norman Tebbit, Secretary of State at the Department of Trade and Industry, and by Mr Nicholas Ridley, Financial Secretary to the Treasury, the man who administers public spending) is that the estimated cost of £400 million seems not to have been questioned. It is not at this stage clear whether the extra investment in engineering education would have been accompanied by an increase of student numbers at British universities.

While the meeting seems unanimously to have denied Sir Keith contributions towards his £400 million, the spending ministries represented at the meeting seem to have been less niggardly with their promise of wholehearted support for what he is trying to accomplish. But his direct request to the Treasury for the extra funds seems to have been met with the familiar statement that "further study" would be necessary.

With time unexpectedly on their hands, Sir Keith and Mr Tebbit appear to have fallen into a desultory and even nostalgic conversation about the advantages there would be if only UK students were able to finance their own residence at universities. Schemes for replacing government maintenance grants by student loans, fashionable at the beginning of the present government's spell of office, have long since been abandoned because they offer no immediate relief to the public treasury.

The chance that the Treasury may find part of the funds needed to engineer The Switch in time for the financial year beginning in April 1985 is nevertheless not identical with zero. But many educationists are relieved that the plan has for the time being been derailed, if only because British higher education institutions are still in the thick of adjusting to straitened budgets — and bracing themselves for the probable erosion of the boundary between universities and ploytechnics. Even so, in the aftermath of Sir Keith Joseph's failure with his begging-bowl, the University Grants Committee is likely to be devising a system of carrots and sticks to persuade universities towards engineering education. □

The year 2000

Prophets of doom rejected

Washington

A BLISTERING riposte to the pessimistic forecasts contained in the Carter Administration's 1980 *Global 2000 Report to the President*, was unveiled in Washington last week by the Heritage Foundation. *The Resourceful Earth*, a new book coedited by the late Herman Kahn and a Heritage Foundation economist, Julian Simon, says the *Global 2000* study is full of factual errors and illogical and misleading arguments. The book says the *Global 2000* warning that by the year 2000 the world will be more crowded, more polluted and less stable ecologically is "dead wrong". Its own happy prognosis is that the world in 2000 will be less crowded (though more populated), less polluted and more stable ecologically.

The Resourceful Earth concedes that the Earth's population will grow by the year 2000, but argues that better housing and mobility will make life less crowded for most people. In the richer countries, it says, there is evidence that hazardous air pollution has been declining and water quality improving. In rich and poor countries alike, life expectancy is increasing and average income has risen. Acid rain, the book says, is troubling, but could be mitigated by a greater reliance on nuclear energy. And the prospect of running out of energy, given the availability of nuclear power, is "purely a bogeyman".

The body of *The Resourceful Earth* consists of a score of papers examining trends in population, agriculture, climatic trends, energy, health and the environment. According to Simon, many of the authors were incensed by the "bad science" of *Global 2000* and were determined to put the record straight. Although almost all the papers are robustly optimistic, the introduction (which appears under the names of Simon and Kahn although Kahn apparently died before he was able to make a significant contribution), warns against complacency. It concedes that all is not well everywhere and that a better future will not happen automatically or without effort.

Why the stark differences between *Global 2000* and *The Resourceful Earth*? Mainly, says Simon, because the report to the President failed to use enough trend data and, when it did, used them badly. Thus *Global 2000*, analysing data up to 1975, predicted continuing stagnation in the size of the fish catch. *The Resourceful Earth* claims that data for the years since 1975 show the fish catch resuming its long-run upward trend.

If there is one thread of pessimism in *The Resourceful Earth* it has to do with people rather than nature. Several papers complain that science and ingenuity offer ready solutions to many of our problems but humans and their institutions have a habit of botching them. A persistent example offered in the book is the reluctance of Americans to embrace nuclear power. In a dissenting statement at the end of the book, one author, University of Pittsburgh physicist Bernard Cohen, says he cannot share the optimism of his fellow authors because science has come under "irrational attack by the forces of ignorance". Public fear of nuclear power, he argues, is the fault of the media, "a group of scientific illiterates drunk with power, heavily influenced by irrelevant political ideologies".

Peter David

The Resourceful Earth: A Response to Global 2000 will be published in July by Basil Blackwell.