

a larger and stronger indigenous industry or that it would not have been there at all, but perhaps in Connecticut.

The doctrine of self-reliance (as distinct from self-sufficiency) was always due to be an election issue. Now, after Bhopal, Mr Rajiv Gandhi will find himself also under pressure from the traditionalists who argue that India's error is to have aimed at something more ambitious than being a village economy. He can be relied upon to resist that claim, on the sure grounds that there is no other way than technology to meet the aspirations of the villagers. For has not the new agricultural technology, he can say, made them well-fed for the first time in history?

But on past form, Mr Gandhi will not turn his back on self-reliance. The two weeks remaining of the election campaign is not the time for changing tack, but afterwards there is the strongest case for looking again at this policy, seeking some way of concentrating resources on a field in which India could make a stronger mark.

Inappropriate

The other common false lesson drawn from what happened last week is that modern technology may as such be inappropriate, not merely in India but everywhere. People say "Look at Three Mile Island", intending to imply that the two accidents are similar and that the technologies that made them possible should ideally be avoided. In reality, nothing could or need be further from the truth. Plants for making pesticides of various kinds have operated safely and successfully during the past half-century; only some of them are risky, as these things go. (One of the ironies of the Bhopal accident is that the pesticide being manufactured, Sevin, is a substitute for DDT introduced in an attempt to avoid the risks of that organochlorine compound; the process for manufacturing the new pesticide has already done more damage than DDT.) But it is a good question whether large quantities of a dangerous chemical, particularly if it is an intermediate, should ever be stored as they were in India. Carrying these chemicals about the country (as is done in the United States) is also a needless risk. What needs to be learned from last week's accident in technically advanced societies is that the handling of novel chemical processes needs constant reassessment. □

Research charade

The UK research community should respond forcefully to the latest disappointments.

THE feckless mishandling of the British research enterprise by the British government has now been invested with an element of farce. So much is plain from last week's events, beginning with the government's attempts to limit the political damage done by Sir Keith Joseph's plan to make higher education more expensive for the student offspring of the well-to-do (see *Nature* 6 December, p.483). Part of the plan to contain the damage was the accelerated publication of the document describing how £14 million of the funds thus "saved" would be used to make the British research councils less constrained. The chairman of the Advisory Board for the Research Councils (ABRC) dutifully stood up in public and said how valuable the extra money would be. But by the following day, Sir Keith Joseph had been forced by the House of Commons to go back on his proposals (see page 582) and by the Treasury to claw back £4 million of what he had been offering a few days earlier. The University Grants Committee, less quick off the mark, similarly had £6 million snatched back from the £10 million it had been offered for universities in crying need of new equipment, but without the added humiliation of having advertised its gratitude in public.

What this pantomime has done is to make a monkey of those who administer the British government's support of civil science, and of government policy on research in general. The common complaint by the research councils in recent years that they have not known where they stand from one year to the next has now been overtaken by the simple truth that they may not know from day to day. The simplest reason why all this is a nonsense is that if

the government was right, at the beginning of last week, to have taken the view that the need for extra funds for science had become so urgent as to justify the political risks of increasing higher education costs, it cannot have become, by the end of the week, proper for it to say that it would let the needs of research go hang.

Even those who believe the British government is right to insist that public expenditure should be tightly controlled will think it humbug that the government pretends that nowhere in its budget of £125,000 million is to be found £10 million that might be spared for the support of research. Indeed, the sum concerned is smaller than the errors that arise in estimating the various components of British public expenditure.

Ministers at other spending departments than the Department of Education and Science will now be quick to say that Joseph's muddle is his own affair, that he should have fought harder, some months ago, when next year's budget was being hammered out and that he should not now expect them to save him from the trouble he has brought down on himself. What, in all this, has happened to the doctrine of collective cabinet responsibility by which British governments set such store, especially when they need to make some recalcitrant minister toe the party line?

Several things should happen now, at least one of which should be a ritual resignation. Ordinarily, it would have been Sir Keith Joseph who would have packed his bags, but he and his government appear to have agreed that that may not be necessary. The members of ABRC and the heads of the research councils are differently placed. Most of them are, in any case, people with other and even better things to do, and cannot much profit from having been made to look like fools. To walk out at this stage would not bring the administration of science to a halt. To stay will be to let the government continue to behave as if the noise there has been about the condition of the British research enterprise is a ramp conceived by self-interested people eager to take for themselves and their cronies a larger share of the public pie, mostly for making their ivory towers more comfortable. Resignations after events such as those at last week can have no immediate effect. Their value is that they would show that people mean what they have been saying about the sombre condition of the research enterprise in Britain.

Initiative

For the rest, the British research community should resolve to seize the initiative for the management of its own affairs that will be there to seize in the period of embarrassment that is bound to follow. It will also be politically impossible to go back on the Prime Minister's promise five years ago that the science budget will be protected, which appears to mean that it will be indexed against inflation and then made to accommodate a variety of needs that were not apparent at the beginning. The best strategy now is that already being followed by two of the research councils (for science and the natural environment), which have embarked on redefinitions of their budgets so as to enhance their flexibility. The Agricultural and Food Research Council has already moved along that road. The need now is that this process should be radical, based on the assumption that the government, the research councils' paymaster, which is plainly indifferent to their present plight, will be equally indifferent to the ways in which they organize their affairs.

ABRC has a special role to play. It is the only committee on which the University Grants Committee and the research councils are both represented. It is also a means by which the British academic community as a whole could be consulted. To salvage the self-respect damaged by last week's events, ABRC should begin to throw its weight about more vigorously, even raising in public some of the questions about British research which are ordinarily considered taboo. Does it, for example, make sense that the British government should administer civil science by the account-book simply because that expenditure is identifiable and thus easily controlled, while allowing the vast apparatus of defence research and development to go its own way because it happens to be part of an even larger enterprise? □