

lines, a small majority for recording research carried out under P2 containment conditions and above, and a larger majority for keeping a record merely of all research in P3 and P4 containment conditions, the two strictest categories.

Reflecting their general belief that recombinant DNA research no longer represents a greater hazard than ordinary research with microorganisms, many committee members were sceptical about the value of a broad study of the effectiveness of IBCs which NIH is now preparing.

If the committees had any value, it was felt, it had been in calming public fears about the health implications of such research. Mr Ray Thornton, for example, recently appointed chairman of the advisory committee, said that the careful supervision of experiments had been largely responsible for the general development of public confidence.

Other speakers suggested that, even if no extra hazards had been identified, the public discussion raised by initial fears had helped to generate a consciousness about the need to watch for biohazards in general. **David Dickson**

Yugoslavia now

Supek's worry

Yugoslavia could shortly face economic collapse if the planners fail to make proper use of the country's scientific personnel. This is the opinion of Dr Ivan Supek, the Yugoslav physicist and philosopher, in London this week for a Pugwash meeting.

Yugoslav scientific and academic life, says Dr Supek, has almost completely lost the impetus of 20 years ago. The financing of basic research is hampered by a bureaucratic system which allegedly subordinates research to consumer control. But reliance on foreign licences (usually purchased when already obsolescent) means that the technological base required by Yugoslav industry and agriculture is either inappropriate or altogether absent.

The chief factor in the decline, according to Dr Supek, is excessive party and state control over science. After the hardliners' coup of 1971, the universities lost much of their autonomy, including the right to elect their own deputies to parliament. (Dr Dupek himself was a non-party deputy from 1963 to 1967.)

At the same time, the university structure was decentralized. The University of Croatia, for example, was divided into four separate universities (Zagreb, Split, Rijeka and Osijek) and the individual faculties, rather than the university as a whole, became the basis of planning and financing. Frequently, said Dr Supek, decision-making fell into the hands of party members with no particular academic background.

Under these arrangements, "censorship by budget" was made easier. Among the

victims of this process was the *Encyclopedia Moderna*, a philosophy of science journal edited by Dr Supek himself.

Dr Supek stresses that it is not the "self-management" process — Yugoslavia's special contribution to socialism — which is at fault. If the current trend towards bureaucratic centralism could be reversed, he said, and "self-management" restored to scientists, both basic and applied research would benefit. At present, however, self-management is simply a slogan.

Such official duplicity, said Dr Supek, is nothing new in Yugoslav science. In 1956, when Yugoslavia began a nuclear research programme, Dr Supek, as director of the prestigious Rudjer Boskovic Physics Research Institute, found himself *ex officio* on the country's atomic energy commission. Although the programme had, officially, a purely scientific and peaceful orientation, its members included the Minister of Defence Ivan Gosrjak and



Supek (right) and defence minister, 1956

Minister of Internal Affairs Alexander Rankovic. Their presence made Dr Supek extremely sceptical of the true aim of the programme, and made him a fervent opponent not only of nuclear weapons but of all applications of nuclear energy.

The duplicity, which, in Dr Supek's words, is allowing self-management to be killed in the name of self-management, will be a major obstacle to any move by the scientists to regain their pre-1971 position. The recent ban of the proposed cultural and sociological journal *Javnost* was justified by the Belgrade authorities on the grounds that the journal was meant to be a front for a would-be cultural elite. Dr Supek, however, is strongly opposed to elitism, and would claim for science only that right of self-government which is constitutionally guaranteed to all Yugoslav workers. The Party hardliners, however, are not prepared to yield without a struggle. Recently agronomists working on the forthcoming five year plan proposed that, for modern farming methods to be introduced, the maximum peasant holding should be increased from 10 to 50 hectares. But in spite of the deteriorating state of Yugoslav agriculture, the proposal was rejected as liable to cause class conflict.

Vera Rich

Agricultural research

Ministry at top

An impending change in the relationship between the Agricultural Research Council and the Ministry of Agriculture, Fisheries and Food (MAFF) now seems likely. Most probably, the council will in future be more directly subject to the ministry. In this respect, it is likely to be worse off than the Medical Research Council, which in October reached an arrangement with its chief sponsoring department of government, the Department of Health and Social Security, that some £12 million of "Rothschild money" should be transferred back to its own annual budget.

Change has been in the air since the publication of a report of the Public Accounts Committee in July 1979 which suggested that the government should consider transferring a further slice of the ARC budget to the agriculture ministry. The underlying principle is that put forward in 1971 by Lord Rothschild, who advocated giving control of research budgets to the chief users of the results of research — the ministerial "customers". At present, some 40 per cent of the research council's spending derives from the ministry, and the Public Accounts Committee was asking why the balance should not be shifted further.

For the past year, a committee under the chairmanship of Sir Brian Hayes, permanent secretary at the ministry, has been trying to decide what should be done. The alternative to a further transfer of funds is a more direct influence by the ministry on the policy of the council. Although a decision has not yet been reached, the second course is the more likely. Either way, the council is unlikely to be overjoyed.

Like many government-supported institutions, the council (ARC) has been hard-pressed to operate within its cash limits during the financial year 1979-80. Nevertheless, by the end of that year, says its annual report published last week, it had managed to plan a reasonable research programme for 1980 and beyond by concentrating its efforts on high priority research.

The council's choice of priorities was effectively made by MAFF which has cut the amount of research it is prepared to buy in some of the ARC's research institutes while increasing it in others. MAFF currently pays for about half of the work conducted in ARC institutes under the Rothschild customer-contractor principle.

MAFF is particularly keen to encourage food research, interest which has proved lucky for the ARC's Meat Research Institute whose grant of £370,000 from the Meat and Livestock Commission was cut last September. MAFF has stepped in to make up some of the loss. It has also increased its contribution to the budget of the Food Research Institute in Norwich,