

salmon and there is a need for international agreements to ensure that this commitment by the countries of origin sees an adequate return. Figures for Scottish rivers show a decrease of more than 50 per cent in the catches by rods and nets between the end of the 1970s and 1983, suggesting that the fish are not maintaining the breeding population.

It is not yet clear how far this decline is due to fishing in international waters or to over-fishing at home. Most British law on the subject is now more than 100 years old and takes no account of modern fishing

methods or the pressures to which the fish are subject. Meanwhile, the salmon farming industry has developed rapidly, particularly in Norway. In the United Kingdom, farmed salmon now account for 49 per cent of sales in a market that has grown 70 per cent in six years. This is rapidly changing the economic parameters, so that international fishing and illegal netting, a major law enforcement problem, will become less attractive. National measures will be meaningful only within the context of international control as envisaged under NASCO. **Sarah Tooze**

## Soviet science

# Academic apologist emerges

OVERCROWDING and lack of equipment are seriously hampering the work of Soviet research institutes, *Pravda* claimed last week. The author of the article, although identified only as M. Korolev, clearly emerges as an apologist for the academic community in the long-running debate on why the results of Soviet research are implemented only slowly. Until recently, the standard explanation was that the scientists were failing to work sufficiently closely with industry. But lately there have been hints that the scientists are no longer prepared to shoulder all the blame.

During the late 1950s and early 1960s, there was what Korolev describes as an "explosive" expansion of research institutes in the Soviet Union which was fully justified by the demands of the national economy and the need to ensure that the Soviet Union could devise an independent solution to any technological problem but not enough attention was paid to the need that the institutes should be properly equipped.

Korolev also says that the various educational ministries had a very free hand, often founding institutes or upgrading them into universities simply for reasons of prestige. Constraints were imposed only later. Although these restrictions have reduced the great flood of new foundations, the Soviet Union still has a large number of ill-equipped and overcrowded institutes.

Korolev's anecdotal evidence suggests that prestige still plays a considerable role. Plans for a new building are passed, approved and included in the five-year plan but, before construction gets under way, the funds may be reallocated. Institutes are built, but equipment is not provided and, as at the Institute of Microbiology of the Byelorussian Academy of Sciences, scientists are left to "travel the whole country, from Grodno to Magadan", hunting for equipment on their own initiative.

Korolev claims many high-ranking scientists have no proper working space — even a laboratory chief at the Ufa petroleum institute complained of being without desk or chair although the situation is

apparently even worse in the humanities. (In the Moldavian Academy of Sciences, says Korolev, 70 per cent of specialists in the humanities have nowhere to work.)

Many of the worst cases cited by Korolev come from outlying republics. Institutes of the Turkmenian Academy and the Dagestan branch of the Soviet Academy, he says, have been waiting years for promised buildings, but even institutes in Moscow have their problems. The Institute of Earth Sciences of the Soviet Academy is scattered over 16 locations in the city, and working space is calculated as 2.7 m<sup>2</sup> per head. Development plans for Moscow are based on the concept of 342 scientific institutes in the capital, with a work force of 135,000. Is this, Korolev wonders, really the "optimum variant"?

Moreover, even if important institutes do manage to get the proper equipment, support facilities are not always available. Some 40 per cent of the scientific staff at the North Caucasus observatory, which boasts the largest optical telescope in the world (600 cm) still do not have their own apartments. (The foundations have been laid, but there is no money to pay the builders.)

Korolev's tentative solutions, given the apparent scale of the problem, seem somewhat unconvincing. Small institutes can be combined into "science centres" serving local industry (a scheme which was launched in 1975, but could be expanded further). Available resources should be used more rationally (he cites the case of computers used only three or four hours daily). A new drive for efficiency and production can be launched in the instrumentation industry. Research bases could be shared by more than one institute or by academic institutes and industry (a few such joint projects have already been launched).

Perhaps the most significant feature of Korolev's analysis, however, is the new awareness that the scientific workforce can no longer be expected to comply with high-level directives to "intensify scientific and technical progress", without the provision of at least a minimum of working facilities and basic living conditions. **Vera Rich**

## Polish universities

# Elections cause some fears

UNIVERSITY autonomy and self-government implies that the universities must support "the goals of the socialist state", the Polish Government's press spokesman, Mr Jerzy Urban, said last week. The state, said Mr Urban, "cannot relinquish a firm influence over the character and the ideological content of university education", since it is university graduates who, in the future, will run "the country, the universities, everything. . ."

The issue of university autonomy was raised by Mr Urban in his weekly statement for the foreign press. According to Mr Urban, the elections of university and college academic councils now under way, and later on the performance of the new university authorities, will reveal whether the academic communities are willing to act in accordance with the letter and spirit of the Higher Education Act, and to abide by the "social accord" between Polish society and the government on which, he implied, the act is based.

The "social accord" has been a major theme of General Jaruzelski's speeches since martial law but, in spite of official claims, it seems not to enjoy nationwide support. Nor, with the act drafted during the Solidarity era still in people's minds, is there unanimity about what the letter and spirit of the Higher Education Act really are.

Mr Urban, it seems, does not expect the university elections to go through without problems — he said that "people who are firm and open opponents" of government policy "want to play a role in governing the universities" and the elections "may not be without elements of political struggle".

How the government intends to assert its authority if its political opponents are elected to university rectorships and councils did not need to be spelled out. The law introduced on 21 July 1983, when martial law formally came to an end, introduced amendments to the Higher Education Act, making it incumbent on university lecturers to teach "in accordance with the constitution of the Polish People's Republic", and providing for the dismissal of lecturers if their "political influence" on their students conflicts with this end.

Urban denied, however, that there had been any recent police actions at the Jagiellonian University of Krakow. The police had not searched university premises, he said, only the private homes of some faculty members suspected of underground activities. Moreover, reports in the Western media of road blocks around Krakow during the search had grossly misinterpreted the facts. The road blocks, he explained, were part of a separate action against black marketeers.

**Vera Rich**