in Australia in 1963. With the backing of government and industry, that was meant to provide Australia with a prestigious scientific meeting place. Its success prompted the Commonwealth Foundation to sponsor similar centres in twelve other capitals. But the attempt to set one up in Britain failed, largely because of the existence of well-established learned societies.

The idea was nevertheless kept alive by a group of senior scientists and administrators, including the president of the Royal Society and the chairmen of the science and medical research councils, concerned to help small specialist learned societies out of financial difficulties. In 1977, the group set up the Foundation for Science and Technology with the remit of raising funds to set up small science centres in British cities.

The London Science Centre is the first. The foundation is now in the throes of appointing a permanent director to take over from its interim director John Chadwick, previously director of the Commonwealth Foundation. But the more immediate problem is to raise enough money to ensure the centre's existence beyond next March. **Judy Redfearn**

World wildlife fund

Bank on conservation

This year the World Wildlife Fund (WWF) is celebrating its twentieth anniversary, and something of a revolution in its policy and strategies. While its aim is still the preservation of the world's endangered flora and fauna, the old incompatibility with the demands of development in the Third World has been resolved. The World Conservation strategy, now in circulation for 18 months, shows that there can be no conservation without ecologically and environmentally sound development policies.

How far this conviction has gained ground within the policies of the European Community was brought to light in a seminar held in Brussels last week, between the European Commission and international conservation organizations. Although the renegotiated treaty between the European Economic Community and the sixty-one African, Caribbean and Pacific (ACP) countries (Lomé II), which are largely old European colonies, now includes a reference to the need for environmental considerations in development projects, the reality in the field belies this exhortation.

The recently completed report by the International Institute for Environment and Development (IIED) on "the European development fund and environment" reveals in case studies undertaken in Jamaica, Guyana, Burundi and Mali the poor degree of environmental impact planning. Failure to consider environmental factors in the planning of development projects has led to the failure of projects, and produces projects which themselves cause environmental damage and the loss of valuable resources.

Although national governments have paid lip-service to the development strategies outlined in the Brandt report and the World Conservation Strategy, the IIED report suggest that the government agencies responsible for aid management have yet to take them seriously.

Speakers at the seminar in Brussels claimed that European Community member states themselves do not pursue economic policies based on the sustainable use resources, and that the Common Agricultural Policy is an instrument for environmental damage not only at home but abroad too. Developing countries are being encouraged to misuse their resources to support irrational pattern of agricultural production and consumption in Europe.

European Commissioner for environmental affairs, Karl-Heinz Narjes, agreed with the need for agricultural and development policies in line with the principles of the World Conservation Strategy. But he pointed out that the Commission and European Parliament were still wrestling with the member states even to win the modest finance needed for an environmental fund from the EEC budget. The prospects for finding the money to expand the work of the commission to include environmental planning were poor.

The need for agricultural research to devote more time to developing agricultural techniques which are also ecologically sound was also discussed at the seminar. A 110-page study just released by the World Bank calls on developing countries to step up their investment in agricultural research from an average of 0.31 per cent of agricultural gross domestic product (1975) to 2 per cent. The number of research scientists, says the bank, will need to increase by 9,000 by the year 1984. Such an ambitious programme would establish a solid base in research and would be an important step in helping to meet the food needs of developing countries.

The World Bank itself plans to expand its lending for agricultural research from $350 million in fiscal year 1981 to approximately $550 million in 1984. The lending for research and extension in 1984 will be 13 per cent of the $4,600 million the bank lends for agricultural and rural development — up from 9 per cent in 1980. **Jasper Becker**

Science parks

Plans forged

A few British universities are planning to set up science parks on the pattern of Research Triangle in North Carolina; the example of route 128 around Boston is less attainable. Although plans for the parks began before the latest crisis, universities hope that the parks will earn them at least some extra income.

Local authorities, especially in areas of high unemployment, are enthusiastic, seeing the parks as a means of attracting new high technology industries and more jobs. Some of the latest schemes differ from the two existing parks attached to British universities — a research and development park at Heriot-Watt and a science park at Cambridge — chiefly by the support they have won from local government.

So far, the most advanced scheme is that announced last week by the council of the City of Birmingham, the second largest city in Britain. The city plans to spend £2.5 million on a science and technology development centre attached to the University of Aston in Birmingham, one of those whose budgets were sharply reduced by the University Grants Committee. The university has since been looking to industry for moral if not financial support.

The city money will pay for the refurbishment of a 3.5-acre inner city site next to the university to provide units for small manufacturing firms or research and development laboratories. More land is to be made available when companies need to expand. The city hopes that new, small companies as well as established multinationals will be attracted to the site, helping the university by paying for the use of facilities and expertise.

The hope is that academics will take on more consultancies and will even be encouraged to set up their own small firms, although the arrangements whereby they can spend up to one day a week working for industry will not be changed. Secondment for those involved in establishing firms, however, will be looked on favourably, according to Professor Frederick Crawford, vice-chancellor of the university.

The initiative for the Aston park came from the city council, hitherto persuaded that neither of its two universities, Aston and Birmingham, was capable of collaborating effectively. However, the appointment of Professor Crawford, who has been involved with the Stanford Industrial Park in California, as vice-chancellor last year, seems to have changed that opinion.

The city council of Salford, an industrial city in the depressed north-west of England, is planning a similar collaboration with its local university, also severely penalized by the grants committee. The council spent £250,000 last year on establishing a pilot science park large enough to house four small technological companies. It has sold land in the Salford enterprise zone (where companies are exempt from rates and planning permission) to a commercial company which will open a larger science park next month. The new park will have close links with Salford University Industrial Centre Limited, a commercial company set up by the university 12 years ago to forge links with industry and one which the local council has just spent £350,000. It is hoped that new business from the science park will boost the uni-

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versity's income through profits accruing to the industrial centre.

The University College of Swansea in Wales is also hoping to set up a science park with local government support next year. It has won the council's support to develop a 20-acre site inside a public recreation area adjoining the university campus.

Similar schemes at the universities of Bristol and Southampton, however, have done less well. The University of Bristol has apparently abandoned its plan for a science park for lack of capital and demand from local industry. And the University of Southampton's project is held up after a refusal of planning permission.

Judy Redfearn

British academic business

NRDC prizes

The National Research Development Corporation, now united with the National Enterprise Board in the British Technology Group, hopes to develop the business sense of British academics by awarding five prizes worth £20,000 each for promising schemes to exploit research results. The prizes will be awarded on a regional basis, the overall winner receiving an extra £30,000. The corporation is also promising to consider favourably investing up to £250,000 in each of the winning proposals.

The aim is to encourage more academics to set up companies to exploit their inventions. According to the corporation, many academics have expressed an interest in doing this, although the more usual way of exploiting research results is for the corporation to take out patents which it then tries to license to industry. Some academics have severely criticized that method, claiming that the corporation is too slow and cautious. The new development suggests that the corporation is prepared to call the academics' bluff.

The corporation has always said that it lacks sufficient good ideas from academics. Nevertheless, to win a prize, academics will still have to convince the corporation of the commercial potential of their plans. Applications for the awards are invited by the end of February 1982 from people who have held postdoctoral or postgraduate studentships or a staff post in an academic institution since January 1979 and who have since either set up or are in the process of setting up a company to exploit an invention.

Applications should include a business plan giving a full description of the product to be manufactured and a marketing strategy. Entrants will be assessed on the probability of success of the business, the technical merits of the product (which must be based on novel technology) and the quality of the business plan.

The corporation is undecided about whether to make the awards in subsequent years, preferring first to assess the quality of next year's applications. **Judy Redfearn**

Swedish universities

More means fewer

Stockholm

Swedish universities are to press the government for an increase in the allocation of students by 10–15 per cent over the next two to three years, to cope with a population bulge among 16–18 year olds — but they believe they can handle the bulge with only a 1 per cent real increase in budget if staff or salaries are cut. These are the current proposals of the Universities och Hogskoleämbetet (UHÄ), the national board of universities and colleges which negotiates with the Swedish government.

The proposals are radical in Swedish terms because university grants have been falling by 2 per cent a year for the past three years. Research councils (whose funds, as in most countries, are accounted for separately) have asked for a 4–5 per cent rise, but this is comparable with recent increases (3–4 per cent a year for the past two years) and is in line with a two-year-old commitment by the minister of education to increase science spending by Sw.Kr.70 million (£7 million) per year for three years. Total Swedish research and development spending is relatively low among Western countries, by comparison with gross domestic product, and most political parties in Sweden support an increase in government research spending.

The big target for savings, however, may be the university lecturers themselves. Staff costs account for 80 per cent of the UHÄ budget, and it will be possible to accommodate an increasing number of students within a nearly constant budget only by making savings on salaries. UHÄ has "no policy yet" on whether the cuts will come through redundancies, reduced replacement of retiring staff or pay cuts. Parliament must take a decision on the budget in January. **Robert Walgate**

Tropical medicine

Out in the cold

The two principal British centres of education in tropical medicine, in Liverpool and London, last week published a mild but reasoned protest at the damage done by government policy. The two institutions hope to persuade the British government to relax its policy on overseas students' fees on the grounds that if overseas aid as a whole is to be reduced by 15 per cent over the next two years, the government might logically spend more on training in tropical medicine.

The argument by the two schools, the London School of Hygiene and Tropical Medicine and the Liverpool School of Tropical Medicine, appears discreetly as a supplement to *Transactions of the Royal Society of Tropical Medicine* under the title "The present state of tropical medicine in the United Kingdom". Both the London and Liverpool schools have been hit hard by the increases in fees paid by overseas students, which were increased by government decree in the academic year beginning October 1980. Fees now amount to about £5,000 a year for courses involving clinical instruction, compared with £1,230 in earlier years. Although both schools maintained the numbers of students from overseas in the first year of the new regime — at the London school over 70 per cent of full-time students came from abroad — they are anxious about the effects in the second (and present) academic year, and in any case, they argue, the increased fees do not fully compensate for reduced support from the University Grants Committee.

The Liverpool School of Tropical Medicine, with support from the Wellcome Foundation, produces this 22-page booklet for general practitioners. The value of having such expertise in this country is one of the main planks of the case for the London and Liverpool schools.

The London school has also suffered from the way in which the Court of the University of London has distributed its grant from public funds. In 1979–80, its income of £2.78 million was made up of a 44 per cent subvention from the University Grants Committee (paid through the University of London), 40 per cent from research grants, 6 per cent from students' fees and a similar amount from payments for "services rendered".

The contributors to the society's report, including the society's president Dr A.J. Duggan, of the Wellcome Museum of Medical Science, and Professor D.J. Bradley, director of the Ross Institute of Tropical Hygiene, concentrate on two main arguments. First, the value to developing countries of work done in the United Kingdom on tropical diseases; and second the benefits to the United Kingdom in the form of indigenous expertise of value to the medical profession faced with increasing risks of "tropical" infections contracted by travellers.

The British government recently published its response to the Brandt Commission proposals on Third World development in readiness for the Mexico summit at the end of the month, in which it defends its intention to reduce overseas aid. The Royal Society of Tropical Medicine and Hygiene is putting forward the Liverpool and London schools as cost-effective institutions for helping developing countries, claiming that this is not a one-way process since much of the research in this country on tropical disease is funded by the World Bank and World Health Organization (WHO).

Charles Wenz

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