

WHO itself is recommended to co-ordinate all activities (at present scattered among a number of different departments) dealing with subjects in any way connected with this field. The organisation, too, will need to establish itself as "the international focus for information and its dissemination at the national level; "collaborating centres" for work in this field should be designated; and the WHO will need to play a leading part in the training and inter-country liaison that must be part of the essentially global approach to research and development of this kind. □

UNESCO science in S. E. Asia

from Yoshinobu Kakiuchi, Tokyo

AT its 17th General Conference UNESCO adopted a resolution aimed at the promotion of research and advanced training on the basic sciences with special emphasis on the needs of developing countries, and to this end UNESCO headquarters in Paris and the Field Science Office for South-East Asia in Jakarta have been working with the Japanese National Commission for UNESCO.

The meeting on regional cooperation in basic science in South-East Asia was held in Tokyo last year to consider approaches, and scientists from nine countries from South-East Asia (in-

cluding Korea and Japan), and observers from Australia and New Zealand and representatives of international organisations joined the meeting. Taking the survey report prepared by two UNESCO consultants into consideration, the meeting agreed to select the field of the chemistry of natural products including microbiology as the first approach to the project.

The second meeting on regional co-operation was held in March this year in Tokyo and Osaka, and the meeting confirmed the establishment of the "Regional Network for Microbiology of Natural Products in South-East Asia" and the name of the interim points of contact of each participating country (a university involved in studies in the field) was suggested by the participant representing the country. The meeting also scheduled a meeting some time in late 1975 to discuss a more detailed picture of the similar network in chemistry, the establishment of which has already been agreed upon in the first meeting.

UNESCO is trying to mobilise all possible means available within the existing framework of its regular budget, but there is a need for more resources for this purpose. Japan has agreed to contribute cash in the form of a fund-in trust designed for use for specified objectives. There has been a fairly long experience in Japan of running UNESCO international graduate courses, one for chemistry and the

other for microbiology (this is actually a one year course for foreign students, not necessarily those from Asian countries) and Osaka University is operating the course for microbiology, with the full consultation and cooperation of microbiologists from universities and research institutions all over Japan. Japanese scientists recommended Osaka University to serve as the Japanese point of contact, after consultation with Professor Kei Arima of University of Tokyo, who is at present a member of the International Cell Research Organisation (ICRO).

For the fiscal year 1975, Japan contributes \$50,000 in the form of fund-in-trust, and also donates approximately \$18,000 equivalent of research equipment. Similar contributions will be expected in 1976. Funds and equipment are to be used exclusively for the academic activities of the network both in microbiology and chemistry, but the amount is by no means sufficient.

At the last Tokyo-Osaka meeting, Mahidol University in Bangkok, Thailand, agreed to serve as the regional centre for microbiology. It also functions as the national point of contact of Thailand, and Professor Pornchai Matangkasombut, who is in charge of research in microbiology in Mahidol University, is at present heavily involved in detailed planning of the structure and activities of the regional network. □

"It is undoubtedly a misnomer to speak of a British technological strategy". That's the harsh verdict of Dr Robert Gilpin, Professor of Public and International Affairs at Princeton, delivered in a mammoth report to a Congressional committee last month. Gilpin suggested that for various reasons, the British "on the whole have made very poor use of their rich scientific and technological resources", and he warned that the United States may make the same mistakes.

Gilpin's observations on Britain's technology policy were contained in a special report to the Joint Economic Committee on the hoary problem of how to integrate science policy and economic policy. Noting that "underlying the British malaise has been the problem of making the adjustment from the status of a global imperial power to that of a middle-sized European state", Gilpin suggested that the relative industrial decline of the United States poses similar problems to that country. The US, he suggested, should learn from the mistakes of the British.

"In the first place", Gilpin suggests, "British Government expenditures, like

those of the US have been overly concentrated in a relatively few areas such as defense, space and atomic energy. The government has taken upon itself the role of entrepreneurship and has concentrated upon commercial development instead of on research, exploratory development and related activities. In substituting its judgment for that of private entrepreneurs with respect to the commercial 'ripeness' of particular high technology projects, the government has assumed a responsibility and tasks which governments do not do well. As a consequence of this neglect of the market very few of these costly projects have had commercial success".

Gilpin goes on to suggest that "the British government in a number of significant cases has made commitments to full-scale commercial development of particular technologies too early and on too big a scale" and notes that "there has been a neglect of more traditional sectors of the economy which for historical and institutional reasons tend to under-invest in R & D."

Finally, he suggests that "the British have failed to integrate sufficiently the

three estates of science and technology; universities, government and industry. They have failed to create the necessary mechanisms to bring together the sources of new scientific and technical knowledge and the industrial users of knowledge. A disproportionately high fraction of British research and development has been conducted in government laboratories or in industry-wide cooperative laboratories catering to specific industrial sectors . . . While this latter set-up has served to improve the state of the several technical arts . . . the spill-over of government-supported military, and related research into the private industrial sector has been minimised".

The underlying failure of British science and technology policy, Gilpin asserts, is that "the government has tried to supplement rather than complement the private market . . . As a consequence, although the British are among the most technologically rich and resourceful people in the world, they have been unable to harness these resources to generate a sufficiently high rate of economic growth and competitive imports".