

The government contribution in the current financial year will amount to £657,000 and will include for the first time a contribution towards the Naples Zoological Station. It had been agreed before devaluation that the Royal Society will be the vehicle for the British Government contribution of £28,000 a year (50 million lire) towards the station so as to qualify for a seat on the administrative council of the station. Presumably the cost will now be higher.

Among the new ventures undertaken by the fellows of the Royal Society in the year past is the setting up of a study group on modern population, chiefly as a result of a discussion held at the society on May 17 this year. The chairman of the study group is Dr H. A. Cole.

Big Biology

CONSIDERATION of the philosophical bases of the International Biological Programme (IBP) has so pre-occupied scientific leadership in the United States that observers elsewhere have wondered when American biologists might actually get down to specific projects, and what these might be. A stream of stately essays has been the main output so far; yet Phase 2, or the operational part of the IBP, was supposed to start last July. At that time, however, the National Committee was in the midst of Congressional hearings on IBP and its funding.

It now seems that, having scrutinized the underlying concepts of IBP more thoroughly than any other community, the United States may now undertake work that is proportionately more significant. This is clear from the most recent report of the National Committee, Report No. 3, Part I, now published. Of the greatest interest are the major integrated research projects specially developed within IBP guidelines by the National Committee and directly sponsored by it. The radical sweep of some of these programmes makes most of the efforts of other countries look very small beer. None is expected to cost less than \$2 million and several will cost a great deal more.

Six such integrated programmes have already been adopted by the US National Committee and were discussed in detail in the committee's report to the House of Representatives Subcommittee on Science, Research and Development. These are: (1) an aerobiology programme to study on a world-wide scale the dispersal of airborne bio-material such as pollen, spores, algae, pathogens, and insects, to make the prediction of crop diseases and other pests more reliable and control more effective (cost \$16 m); (2) large ecosystems analysis of which six contrasted regions have been chosen including a polar environment and a South American tropical forest (cost \$45 m); (3) a joint Canadian study of Eskimo populations based on at least three widely separated population centres in Alaska, Arctic Canada and Greenland whose communities all stem from the same origin but which have become differentially adapted (cost \$2 m); (4) intensive work on the Hawaiian "evolutionary explosion" while it remains identifiable—this rich flora and fauna has all evolved from 700 immigrant ancestors in the few million years that the islands have been isolated, but the area has already lost more land species than the whole North American continent put together through the accelerated impact of man (cost \$2 m);

(5) phenology within the United States, or the impact of climate and seasons on animals and plants, is expected to lead to a series of maps of the country in terms of nest-building, fish-spawning, bud development, seed production, useful for biological prediction (cost \$2 m); (6) ecology of migrant populations, primarily concerned with the effects of urbanization on rural peoples and particularly those migrating from rural southern states to large city receiving areas such as Chicago (cost \$10 m). All these programmes now have a research director and some sort of headquarters, although none have yet secured funds. The committee shows confidence that they will be obtained, and hopes for House sympathy over requests.

In addition, nine other major research operations are under review and a whole series of high-level "workshop" meetings are taking place this month and next to bring these to a head. They cover the adaptation of peoples to high altitudes; experimental biogeography of the sea; control of insects by plants and plants by other plants; biological control of pests, insects and other organisms; (in conjunction with Japan) adaptive processes in hybrid human populations; adaptability of primitive peoples; convergent and divergent evolution, and the physiology of colonizing species; plant gene pools; nutrition and new foods.

Apart from these committee-sponsored moves in a grand strategy, the recent report lists over 100 individually proposed schemes relevant to the IBP, many of which are going on anyway and are already financially secure. The number has now risen to a total of about 170. This section of the report is quite a rag-bag, and the items very uneven in value and interest. This section much more resembles the national programmes of other countries such as Britain where the impression is left that the IBP has provided a new system for indexing research projects already in progress.

Some of the written answers to the Congressional Sub-committee's enquiries are revealing. Asked to consider what effect a lack of funds would have on the international programme as a whole and on American scientific prestige and US standing generally, the witnesses answered: "The IBP National Committee feels that this would not greatly affect the prestige of American science. At the same time, it points out that experience in the last 15 years has demonstrated that, if any international scientific programme is to be successful, the US must take a strong and vigorous role. It applies the analogy of 'critical mass'; with added fuel the programme will 'go'; with decreased fuel the programme will falter . . ." Summing up the committee evidence: "Inadequate US support would adversely affect this international research programme. Inadequate US support and participation would delay urgently needed world-wide ecosystem research."

Anniversary in Chicago

THE twenty-fifth anniversary of the first controlled release of nuclear energy rolls around this week. The University of Chicago is holding two days of ceremonies to celebrate the birth of the nuclear age in a squash court under its football stadium on December 2, 1942. The stands at Stagg Field have now been demolished, and five of the fifty who witnessed the scene are now