

OLD WORLD

UNESCO

Work for Pruning Hooks

THE discussion of Unesco's Man and the Biosphere programme in Paris last month resulted in the thirty-one research projects that the conference met to discuss being cut to thirteen. The thirty-one projects were the result of a Unesco general conference as long ago as November 1966 which authorized the preparation of a research programme on the rational use and conservation of the resources of the biosphere. The thirteen projects which have finally emerged will now be considered by the twenty-five national committees of the participating nations which will decide which projects they will support and to what extent.

Before the meeting, doubts had been expressed about the effective need of the programme, particularly in Britain and the USA, but the reaction of the British delegates to the conference—although this may not prove to be the reaction of the national committees—is that the meeting was effective and constructive. Dr M. E. D. Poore, Director of the Nature Conservancy, declared himself "quite well satisfied with progress made" as the programme that emerged is much more precisely defined and practicable. The thirteen projects that have emerged range from studies of ecosystems in rivers, islands, mountains and forests to studies on the effects of engineering work, energy use and population movements on man and his environment.

During the conference, the emphasis changed from considering man set against the biosphere to considering man as an integral part of it who simply has a greater power than other organisms to alter it for better or worse. The relationship between the natural sciences and the social sciences received greater emphasis in the final projects—one is concerned with how man's perception of environmental quality varies from place to place.

One reason the conference was so successful is that the delegates, although representing governments, were largely scientists rather than administrators, and thus the final programme is felt to be more practicable and profitable than might otherwise have been the case.

No cost estimates are available for the projects as yet, and it is doubtful if they will involve large amounts of expenditure that would not otherwise have occurred. Where the programme is likely to have greatest effect is in the exchange of findings between countries and in the prevention of duplication. Additional finance may well be provided by developed countries working in

participation with developing countries to initiate studies on, for example, desert and forest ecosystems. This was the basic philosophy on which the International Biological Programme—which is not government sponsored—ran, and of which the Man and the Biosphere programme is to a certain extent the continuation.

Once the national committees have decided the extent of their involvement a detailed programme will be produced for confirmation by another conference in March 1973, although work on the projects may well start before then.

INFLUENZA

Beating the Bug

BRITISH health authorities expect outbreaks of influenza this winter to be worse than last year's comparatively light outbreaks. Large numbers of cases have already been reported on the continent, particularly in Spain and eastern Europe, and *Pravda* reported last week that the Soviet Union is expecting outbreaks soon. In Britain, people at special risk have been advised to arrange vaccination quickly. These include people with chronic lung complaints, heart conditions and glandular disorders. The influenza strain is the same as last year's—the A2 Hongkong virus which first appeared in 1968 and which affected eight million Britons two years ago. Vaccines at present available give protection against all current strains of influenza for about seven months. An attack of influenza, however, gives immunity to that particular strain for between six months and two years, which partly accounts for the light outbreak last year. Antibody levels in the population last year meant that about 70 per cent of the population had some sort of protection but this has now fallen to about 40 per cent.

There are three serotypes of influenza (A, B and C), each with subtypes. Antibody levels against type C are naturally high and at worst it only produces mild colds. The A and B strains are the ones that produce the epidemics. Both these strains mutate slowly and continuously so that new vaccines have to be introduced every few years to allow for the change, but A strains also mutate abruptly every seven to ten years—as in 1968 with A2 Hongkong and in 1957 with A2 Asian. It is these sudden mutations that tend to produce the really bad epidemics as it takes three to four months to produce commercial quantities of a new vaccine. From studies on pigs which have caught A2 Hongkong from man it is thought that the A strain influenzas may be animal viruses which have crossed the species barrier into man.

The vaccines used in Britain are the

Satellite Delays

THE launching of the ESRO satellite, HEOS-A2, scheduled for December 10 has been postponed until January 1972 at the earliest. The reason is that NASA is still investigating the cause of the recent failure of the ITOS-B launch and no Delta rocket launchings will take place until the end of the investigation. NASA has confirmed that in spite of the delay it will still attempt to launch the next scheduled ESRO satellite at the end of February, as originally planned.

The launching of the UK-4 satellite originally planned for November 29 has been put back once again. The launch, which has now been twice postponed because of a fault in a monitor in the University of Iowa experiment, is now planned to take place from the Vandenberg test base in California on December 9.

inactive type. Formalin or betapropiolactone is used to inactivate the virus, leaving the antigens still present on the surface to build up the blood's antibodies. The vaccines do not, however, guarantee immunity. The Department of Health and Social Security says they are only 40 to 60 per cent effective but the manufacturers claim an efficiency of about 70 per cent. The discrepancy is probably due to the conditions under which the vaccine is tested and to the fact that a number of conditions produce symptoms similar to those of influenza and these cases are unjustly put down to vaccine failure.

Perhaps the best hope in the control of influenza lies in live virus vaccines which are already in use with mixed success in the Soviet Union. Work on live vaccines began in Britain in 1957 at the Common Cold Research Unit in Salisbury. The principal problem is that a virus in a vaccine must be sufficiently attenuated not to give the recipient influenza and yet active enough to be effective. Live vaccines under tests are producing immunity levels of almost 100 per cent, although they produce lower antibody levels than inactive vaccines. Commercial application of live vaccine is still some years away, however, as careful tests are needed to ensure that the attenuated virus does not revert to its wild state during use. If and when live vaccines become available they will be much cheaper than the inactive vaccines as about 10,000 doses can be produced from one egg as compared with one dose of inactive vaccine.