

THE WORLD HEALTH ORGANIZATION

THE annual report of the Director-General of the World Health Organization for 1959 shows the wide range of the assistance given by the Organization to countries throughout the world, both directly in the form of projects adapted to particular needs, and through international technical services of the more traditional type*.

The 'project list', occupying more than half the volume, gives particulars of the projects, numbering more than 500, in which the World Health Organization has been co-operating with the Governments of some 140 countries, sometimes in conjunction with other organizations. A summary narrative for each project states its aim, the nature of the assistance and progress made during the year, and adds, where possible, an assessment of the results obtained. The list, grouped by country and subject title under each of the six regions of the World Health Organization, includes inter-country and inter-regional projects in which help is given to groups of countries working together on common problems—a type of project that appears to be increasing in importance.

In his introduction, Dr. M. G. Candau, director-general of the Organization, directs attention to the fact that in 1959 the Organization's work was carried on "against a general background of reduced tension in international affairs" and of "substantial improvement of economic conditions throughout the world, particularly in Europe"; and he finds growing evidence of the determination of world leaders to devote more of their countries' resources to help nations still in the early steps of technological and economic development to raise their standards of living.

In discussing some of the changes of emphasis in the Organization's programme, the director-general points out that communicable diseases remain one of the world's most serious health problems. For some, more knowledge is required; for others, such as malaria and smallpox, the methods are broadly known and what is wanted now is organization, trained staff and money.

* Official Records of the World Health Organization, No. 98: The Work of WHO, 1959—Annual Report of the Director-General to the World Health Assembly and to the United Nations. Pp. x+283. (Geneva: World Health Organization; London: H.M. Stationery Office, 1960.) 6 Swiss francs; 10s.; 2 dollars.

Among diseases calling for increased vigilance are the treponematoses. More than 100 million people still live in low-prevalence yaws areas, in several countries there has been a disturbing recrudescence of venereal syphilis, and a growing incidence of gonorrhoea has been found in 15 out of 22 countries surveyed. Investigations are being pursued in order to ensure that the most effective assistance can be given to countries combating these problems.

With tuberculosis, recent findings which show that domiciliary chemotherapy may for most cases be as efficacious as treatment in sanatoria are of particular importance to the many countries where there is an acute shortage of sanatoria beds.

Mention is also made of the newer developments against leprosy, bilharziasis, poliomyelitis and the zoonoses, and of preparatory work with the view of eradicating smallpox.

Much preparatory work has been done during the year for the expansion and intensification of the medical research programme. Main targets and priorities, established with the guidance of the Advisory Committee on Medical Research, include the communicable diseases (with emphasis on viruses and diseases prevalent in tropical countries); for the highly industrialized countries, the chronic diseases, particularly cancer and cardiovascular troubles; nutrition, and problems of the increased risk of exposure to ionizing radiations. The 'service to research' will include standardization of nomenclature techniques and equipment, and the expansion of, the Organization's system of international reference centres.

Emphasis is also being given to the vast programme for the improvement of water supplies for communities, which is a primary objective in the attack on the enormous problems of environmental sanitation. The programme will be carried out in collaboration with departments of public works and with public administrations and financial authorities.

Annexes to the report give details of the membership of the Organization, its Executive Board and expert committees; the main heads of the budget for 1959; and particulars of the secretariat structure and composition.

THE METROPOLITAN WATER BOARD

LONDON is by far the largest town in Britain taking its raw water supplies from wells in, or from rivers flowing through, a densely populated and industrialized area, and the reports of the Director of Water Examination of the Metropolitan Water Board* are an invaluable guide to the measures which have to be taken, and the research which has to be carried out, to obtain a safe potable water from these sources.

The first necessity is, of course, to control and restrict pollution of the raw water. A good example

* Metropolitan Water Board. Thirty-Eighth Report on the Results of the Bacteriological, Chemical and Biological Examination of the London Waters for the years 1957-1958. By E. Windle Taylor. Pp. 114 + 4 plates. (London: Metropolitan Water Board, 1960.) 21s.

of what can be done is afforded by the River Lee; in spite of the growth of both population and industry in the catchment area between 1948 and 1958, the quality of the river water improved substantially during that period. This was due in part to the improvement and extension of the sewage works at Luton (including the provision of a final stage of treatment by rapid sand filtration or by micro-straining), and in part to the treatment of the sewage of several towns, including the new towns of Harlow and Stevenage, at a single works, discharging to the Lee below the Board's New Gauge intake.

Within the catchment area of the Thames there are three major establishments, at Harwell, Aldermaston

and Amersham, from which radioactive effluents are discharged. These liquors, in which the level of activity permitted is very low, are regularly monitored before being released—the Harwell effluent by the Atomic Energy Authority, the Ministry of Housing and Local Government, and the Metropolitan Water Board. There is no evidence, from the Board's observations, that there has ever been any activity present, at its raw water intakes, which could be attributed to discharges from the three establishments. The concentration of activity in treated water is about half that present (from fall-out) at the intakes, both in the Thames and Lee, the reduction being due to removal of suspended matter, radioactive decay during storage, and sometimes to dilution with relatively inactive well water. A large-scale experiment was made by adding 500 mc. of strontium-90 to 1.5 million gallons of water, standing in a disused filter bed; during a period of nine months the level of activity was reduced by about two-thirds (the water contained abundant algae and much rooted vegetation), but the results suggested that grossly contaminated waters would not be rendered potable in any reasonable time by storage alone.

An examination of waters from a number of wells for the presence of alkylbenzene sulphonates—the anionic surface-active agents which are the basis of powdered synthetic detergents—showed that in some they were absent, but that in others they were present in concentrations similar to those found in the Thames to which sewage effluents are discharged. It is of great interest that in a well water the presence of the surface-active material may be the only surviving evidence that the water has been polluted by sewage

or sewage effluent—ammonia, coliform bacteria, and the other usually diagnostic constituents of effluents having been removed during percolation of the water through the ground. These observations were made before the use on a large scale of biologically 'softer' alkylbenzene sulphonates in detergents sold in the south of England.

Continuing its work on the relation between chemical structure and susceptibility to degradation by bacteria, a wide range of organic substances has now been examined in the Board's laboratories; from this the important conclusion is reached that because of the relative immunity of chlorine-substituted organic compounds to bacterial attack, it is unwise to chlorinate effluents containing mainly organic matter; this would include sewage effluents. Chlorination of such effluents has never been widely practised in Great Britain but appears to be common in the United States, and there has been a good deal of discussion recently on the wisdom of adopting this quite expensive method of treatment.

Among the other matters dealt with in the report are the use of automatic instruments for recording concentration of dissolved oxygen (a knowledge of which is important in taking a water supply from a thermally stratified reservoir); the presence of *Salmonella* organisms in bone meal and other fertilizers; and the persistence of fluoride in water during storage in a reservoir. Considerable advances have been made in the use of the membrane filter technique in the counting of coliform bacteria; with this method the count is available after 18 hr. as against 24 hr. with the older multiple-tube technique.

B. A. SOUTHGATE

EAST AFRICAN FISHERIES RESEARCH ORGANIZATION

TO the scientist the annual report for 1959 of the East African Fisheries Research Organization can only be a somewhat depressing document*. When the Jinja Laboratory was established in 1947-48 together with the Lake Victoria Fisheries Service, there seemed to be some real prospect of keeping a developing fishery under full observation, and managing it in a scientific manner in the light of both the catch statistics collected by the Fisheries Service and the information on the biology of the fish acquired by the staff of the Laboratory. In the eleven years of its life the Laboratory has not only made good progress with the task assigned to it, but also made notable contributions to our knowledge of tropical waters. On the other hand, those responsible for government at the political level have signally failed to profit by the scientifically based advice tendered by the Research Organization. As a result, the fishery is rapidly declining in productivity owing to overfishing, precisely as it was predicted that it would in the absence of more stringent and effective control. That this small fishery should be following the same downward path as the internationally exploited sea fisheries, where control is so much more difficult to exercise, is a sad reflexion not only on man's cupidity but also on the lack of scientific understanding of so many of those we appoint to

govern us. This last point is further emphasized by the fact that in the small staff at Jinja (a director, four research officers and two senior field officers) there is a vacancy for a fifth research officer which cannot at present be filled for lack of finance. Consequently, the work of the Laboratory is now restricted almost entirely to fish, and moreover the Lake Victoria Fisheries Service has been disbanded, though its duties have been, at least nominally, transferred to the Fisheries Departments of the three Territories concerned (Kenya, Tanganyika and Uganda). It is much to be hoped that means will be found to continue the fundamental observations on the hydrography and chemistry, and the algal and invertebrate populations of the Lake, on which the Laboratory has made such an excellent start.

A series of appendixes give in a convenient, concise and readable form the results of some of the work done at the Laboratory during the year. One of these contains important observations on the analysis of data based on gill-net catches, made by a member of the staff of the Fisheries Laboratory at Lowestoft. Another shows how easily and rapidly the very local populations of *Tilapia esculenta* in Lake Victoria can be over-fished down to a level at which the yield ceases to be profitable. A third gives briefly the results of an investigation, made by an entomologist, of the food of several of the species of fish other than Cichlidae which inhabit Lake Victoria. In contrast to the mainly herbivorous species of *Tilapia*, the

* East Africa High Commission. East African Fisheries Research Organization: Annual Report 1959. Pp. ii+46. (Jinja: East African Fisheries Research Organization 1960.)