

in the biological and physical sciences, including engineering, and 300 millions of this will come from the Federal Government. This dependence on Federal support as well as the bias towards science and technology is already disturbing educational authorities, who fear that the heavy bias towards applied science will also destroy the balance between applied and pure science in the universities and seriously affect the teaching staff of American universities. Some estimates of the research effort of American universities in terms of man-power are cited for the physical and engineering sciences and for medical research.

The next two sections of the survey summarize the findings of the Paley Commission and other bodies concerned with the conservation of materials, and the position of the National Science Foundation and the work of the Interdepartmental Committee on Scientific Research and Development. There follows a series of brief reports on progress in atomic energy and nuclear physics; building research and techniques; mechanical and production engineering; computing machines; water supply and treatment; chemistry; metallurgy; fuel and power; and the biochemistry of food processing and preservation. Finally, the technical assistance programme of the Mutual Security Agency is described, although with this only the United Kingdom Scientific Mission is concerned. Among new developments referred to in this report are mortars made with polyvinyl acetate emulsions, a new brick, a method by which concrete slabs for upper floors or flat roofs can be cast at ground-level and jacked into position, a novel lathe-cutting tool, a "permionic membrane" for giving potable water from brackish or sea water, a continuous ion-exchange process designed by the Stanford Research Institute, the introduction of butadiene-styrene latex-based paints and the rapidly increasing use of antibiotics in feeding farm animals.

Research Organization, £90,000 for the East African Insecticides Research Unit, £106,597 for the Medical Research Council's Field Research Station at Fajara, Gambia, and £77,515 for the Colonial Microbiological Research Institute at Trinidad. £43,160 goes to rice research in Nigeria, £43,000 to the East African Fisheries Research Organization, £32,935 to the establishment of an Agricultural Research and Experimental Station in Nyasaland, £31,330 to the maintenance of the Anti-Locust Research Centre and its extra-mural work, £29,321 to the East African Institute of Social and Economic Research, £26,450 to the Hot Climate Physiology Unit in Nigeria, £24,000 to malaria research in Trinidad, £19,200 for research into the control of *Stomoxys calcitrans* in Uganda, and £16,900 for fundamental insecticide research at the Silwood Park Station (Imperial College of Science and Technology, London) and at Rothamsted Experimental Station.

Grants of particular scientific interest for development and welfare schemes, apart from those for geodetic, topographical, geological and mineral surveys, include £29,476 for the control of 'sudden death' disease of cloves in Zanzibar, £185,000 for a scholarship scheme for residents in Colonial territories to provide training to qualify for public service, £121,620 to University College, Ibadan, £108,040 for the development of African education, and substantial grants for the improvement or development of roads in Nyasaland (£220,000), Malta (£364,394), North Borneo (£305,900) and British Guiana (£315,416), and for the improvement of water supply or control in British Guiana (£919,481), the Gold Coast (£488,000), Malta (£320,250) and Gambia (£70,000). Of a further £1,230,000 for the Uganda Development Plan, £180,000 is for geology and rural water supplies, £390,000 for education, £120,000 for medical schemes, £150,000 for urban water supplies and £90,000 for agriculture.

BRITISH COLONIAL WELFARE AND DEVELOPMENT DURING 1952-53

A GLANCE at the "Return of Schemes" made under the Colonial Development and Welfare Acts by the Secretary of State for the Colonies during the period April 1, 1952-March 31, 1953 (Colonial Paper 189. Pp. 26. London: H.M.S.O., June 1953; *Is. 3d.*), reveals the dependence of Colonial research on the funds provided under these Acts and the importance of the legislation contemplated in the 1954-55 session to which the Colonial Secretary, Mr. Oliver Lyttelton, referred in his statement to the House of Commons on June 24. The schemes detailed in the White Paper bring the total commitments for development and welfare schemes under the Acts to £97,662,196, of which £13,889,622 is for the year in question, and for research schemes to £11,710,492, of which £1,087,041 is for the year ended March 31, 1953. Of this, £372,486 is for agriculture, £204,878 for medicine, £204,143 for insecticides, £119,115 for products research (£41,600 of which goes to the Colonial Products Research Council), £47,804 for fisheries, £37,754 for economic research, £31,330 for locust control, £23,293 for tsetse and trypanosomiasis, and £24,088 for social science.

Of the actual research schemes, the largest are £173,380 for the East African Agriculture and Forestry

UNIVERSITIES' COUNCIL FOR ADULT EDUCATION

REPORT FOR 1951-52

U NLIKE the previous six annual reports of the Universities' Council for Adult Education, the seventh annual report, covering the year 1951-52, attempts to survey the extra-mural work of the constituent universities as a whole*. During the year, the work of University Extra-mural Departments throughout Great Britain further expanded, and the departments in the Council became more closely associated. With the addition of the Universities of Edinburgh, Glasgow and Belfast, the membership of the Council is now twenty-one, and the number of courses and classes conducted was 4,064, as compared with eighteen and 2,067, respectively, during 1945-46. During the 1951-52 session, two committees completed their investigations into the teaching of science and the training of teachers, respectively, while the up-to-date bibliography of adult education and the handlist of current studies in the subject, prepared by the Council's Research and Training Sub-Committee, were published, as a co-operative enterprise, by the National Institute of Adult Education.

* Universities Council for Adult Education. Report on the Year 1951-1952. Pp. 26. (Bristol: W. E. Salt, Hon. Secretary, The University, Bristol, 1953.) n.p.