

## SCIENCE AND HUMAN NEEDS

AMONG the many subjects that were discussed at the Conference on Science and World Order held during September 26–28, there was none that met with more support and general agreement than the need for an increase in the standard of living, especially as regards nutrition. Gone are the days of 'subsistence standards', that would give the necessary number of calories to keep body and soul together.

The right of every individual to the means of attaining his full inherited capacity for health and physical fitness, said Sir John Orr, of the Rowett Research Institute, Aberdeen, should rank equal with his right to religious and political freedom. We have now an authoritative standard of dietary requirements for health, but when diets in common use are compared with this standard, it is found that, even in the wealthiest countries, the diet of the poorest third of the population does not come up to the standard. This rough estimate gives an indication of the extent to which mankind can be freed from much of the burden of disease, poor physique and resulting suffering which formerly was thought to be due mainly to heredity and, therefore, inevitable.

In the decade preceding the outbreak of the War, some Governments realized the importance of the new science of nutrition for human welfare and took measures to improve the diet of the poorest. These measures have had striking results. The great decrease in deficiency diseases, the reduction in both infant mortality and tuberculosis death-rate, the increased stature and better physique of school-children which have taken place in Great Britain in recent years, are due mainly to the great improvement in the diet of the poorest. This gratifying and rapid improvement in national health shows how easily average health and vigour can be raised.

If we are going to plan for human welfare, we should begin with a food policy based on nutritional needs. This would do more to promote health and happiness, and alleviate the worst effects of poverty, than any other measure. If every family knew that, in any circumstances, they would have sufficient of the right kind of food to give their children full opportunity for the enjoyment of a healthy life, the worst fear of want would be eliminated.

Mr. Herbert Morrison, the Home Secretary, while careful not to commit the Government, expressed himself in equally unequivocal terms. Within the last generation, he said, science has given us a new body of exact knowledge about

human and social needs. Social scientists have told us that in Great Britain nearly half the population, a few years before the outbreak of war, had a diet below the minimum needed for health. The great experiment made possible by the War has demonstrated that a people living on a diet more restricted in bulk and variety, need not suffer in health—indeed may even show some improvement as measured by epidemic statistics—when steps are taken to ensure that the food they get contains the right proportions of those ingredients needed for healthy living.

Our satisfaction about national health during the War must not blind us to the fact that we are, partly through ignorance, partly through poverty, still well below an optimum food standard; health, growth and expectation of life will all be greatly improved if we can attain that standard.

Turning to the question of housing and town-planning, Mr. Morrison pointed out that systematic study of the effect on health of immediate environment, and analysis of housing standards, have indicated that a certain minimum individual allowance of space, privacy, fresh air and sunlight is an essential for health. Yet, judging by the Government standard of overcrowding, which is by no means strict, more than 340,000 houses in England and Wales are found wanting. In one of our great cities nearly a third of the population are living in a state of overcrowding. The death-rate in the slums of one city is 28 per thousand, as against 18 per thousand in municipal houses.

As to clothing, the Board of Trade has given a flying start to exploration of this field, by the system of rationing now in force. We can accept sixty-six coupons, and what they will procure, as a useful first approximation to a minimum—not, of course, an optimum—welfare standard in clothing.

Dr. Agnes Hamilton, of the London County Council, dealt with the needs of a specific group, the housewives. She expressed the hope that time-saving appliances and fittings, now found only in the more expensive modern dwellings in Great Britain, will become available to all. The chromium sink, the electric mixer, the refrigerator, Bakelite fittings, and central heating and hot-water arrangements, if made available normally for the woman in the home, could revolutionize her life and that of her family. Not only could the home-keeper dispose of her household chores in a time limited enough to permit her to follow a career, if she wants to do so, but work in the house would also become a skilled profession, such as can enlist the services of regular workers who have the talent

for it that does not belong to every woman as such.

An account of some of the recent social work carried out in the United States for the relief of malnutrition and improvement of health was given during the session on world planning by Prof. Alvin Hansen, professor of political economy in Harvard University and special economic adviser to the Federal Reserve Board. In 1934, he stated, surplus farm products were purchased by the Federal Government for distribution to needy families and for use in school lunch programmes. In 1939 the Food Stamp Plan was inaugurated. That plan is now reaching about four million families and distributing foods worth 120 million dollars a year. Most of the foods so distributed are protective foods needed by under-nourished families. Free lunches are now available to about four million school-children. Low-cost milk is being distributed in several large American cities.

The Conference on National Nutrition for Defense, held in Washington last May, recommended vigorous and continual research in nutritional problems, more widespread education of medical men, dentists, social service workers and teachers, in the newer knowledge of nutrition; also the mobilization of motion pictures, the radio, the Press, and home and community demonstrations to spread knowledge of nutrition among the people.

The programme of nutrition should be attacked from an international angle. Arrangements could be made for international exchange of surplus products to be used for free school lunches, since the means exist now, for the first time in history, to produce abundant food for all mankind.

The level of health in the United States to-day, Prof. Hansen said, is higher than ever before, but it is none the less true that large sections of the people do not share in the general high health-level, and it is only just beginning to be realized that to ensure available treatment to all is a basic public concern. In 1934 President Roosevelt appointed a Committee on Economic Security to study, among other things, the country's health needs, and after the passage of the Social Security Act in 1935, he appointed the Inter-departmental Committee to co-ordinate health and welfare activities. This Committee, in its report, envisages a gradually expanding programme, reaching its peak by the end of the tenth year. The programme includes the creation of public health organizations and facilities for combating special diseases, and for maternal and child health services; also the expansion of present hospital facilities and medical care for the medically needy.

Lord Hailey, in his address at the session on world planning, discussed the needs of the peoples of the British and other colonies. We must see

that they have the type of nutrition that will establish the necessary measure of resistance to disease. They must have access to medical facilities for dealing with physical disorders, epidemics and other sickness; and access to such measure of popular instruction as will enable the mass of the people to adjust themselves to the needs of new economic and cultural conditions. It is only in the last few years that we have inaugurated a general survey of nutritional conditions in the Colonies, and the extent of popular education was for long dependent upon missionary initiative.

Several of the papers presented to the session on post-war relief also dealt with problems that are of a permanent nature. Prof. Julius Löwy, of the University of Prague, mentioned that delicate and convalescent children are in need of mountain and sea air, and that industrial workers suffering from systematic poisons must be placed in suitable climatic conditions. Dr. Anni Noll pointed out that regular periodic health overhauls of family units, such as are carried out at the Peckham Health Centre, London, are essential.

Mr. Noel-Baker, M.P., supported earlier pleas for a balanced diet: "We know how much protective and energy-producing food every child and adult ought to eat, in other words, we know what our food policy ought to be. We know with mathematical certainty that if we could give every one a minimum standard for maximum health, the community as a whole would be richer, healthier and happier in every way, and we know that if we plan right, we could produce the food. Mr. McDougall Inglis, who is a very high authority, says that we could do it for North America and Australasia in five years, for the whole of Europe in eight or ten years, and for the whole world rather longer."

Returning to Sir John Orr's address, which set the tone to many of the subsequent utterances, it may be pointed out that he referred to several diet standards: the British Medical Association's "minimum", the League of Nations' "optimum", the American Agricultural Department's "moderate" and the American National Nutrition Council's "lowest" standard. He might have added to these Cadbury's "suggested" diet and the Engineers' Study Group "desirable" standard. Sir John did not go into the differences between these standards—and perhaps it is unnecessary to do so at this stage. The following article dealing with post-war relief makes it sufficiently clear that the diet-level in Europe and elsewhere is already very low, and likely to be at a starvation-level at the end of the War. It will not be practicable therefore to begin with the highest level, and we shall have perforce to pass through the stages represented by the several 'balanced' dietary standards.