

Far Eastern Rural Hygiene Conference.*

A CONFERENCE on Rural Hygiene for Far Eastern Health Administrations, summoned by the League of Nations Health Organisation, was opened at Bandoeng in Java on August 3rd. This Conference is one of a series that have been, or will be held under the auspices of the Health Organisation in different parts of the world. The first was the European Rural Hygiene Conference in 1931. In 1932 and 1935, African Health Conferences took place. A Rural Hygiene Conference for American countries is also being prepared by the Health Organisation and will be held at Mexico City towards the end of 1938.

The proposal to hold a Rural Hygiene Conference for the Far East was made at the Assembly in 1932 by the representative of India, supported by the Representative of China, and was repeated with further support at the Assembly in 1934. The Bureau of the Health Committee was asked by the latter as early as 1932 to make a preliminary study of the question and obtain the opinion of the Advisory Council of the Eastern Bureau of the Health Organisation in Singapore. The Advisory Council reported in favour of holding the Conference. In view of the interest aroused in the East by the prospect of a Rural Hygiene Conference, the Health Committee decided in October 1935 that it should meet in 1937, and asked its Bureau to undertake the preparatory work.

The holding of this Conference reflects the rising interest in Far Eastern countries and colonies that is being taken in raising the standards of living, both from the point of view of health and nutrition, of the rural population, which comprises the overwhelming majority of the teeming millions of the Far East. The present Conference has been carefully prepared over a considerable period of time.

PREPARATIONS.

A Preparatory Committee consisting of: Mr. A. S. Haynes, formerly Colonial Secretary of the Federated Malay States, Chairman; Professor C. D. de Langen, formerly Dean of the Faculty of Medicine of Batavia; and Dr. E. J. Pampana, of the Health Section of the League of Nations Secretariat, Secretary of the Malaria Commission, made a tour, lasting from April to August 1936, around India, Burma, Siam, Malaya, Indo-China, the Philippines, the Netherlands East Indies and Ceylon.

The Preparatory Committee then prepared a report for discussion at the Conference, in which it endeavors to state on the basis of a mass of facts, observations and experiences, the fundamental terms to which the problem of rural medicine and health can be reduced in the conditions prevailing in the Far East. The different chapters of the report supply a general indication of the matters to be discussed under each item of the agenda of the Conference.

The Conference was attended by delegations from North Borneo, Burma, Ceylon, China, Fiji, Gilbert and Ellice Islands Colony; New Hebrides Condominium, Hongkong, British India

and four Indian States, Netherlands East Indies, French Indo-China, Japan, British Malaya, Philippines, Siam, British Solomon Islands Protectorate and Tonga.

HEALTH AND MEDICAL SERVICES.

The first chapter of the report of the Preparatory Committee surveys the different forms of health and Medical services that exist in the Far Eastern territories represented at the Conference. It draws attention to what it calls "the burning question whether, having regard, to the desires of Asiatic Society, one or more than one type of doctor should be trained. In other words, should there be only one body of fully trained medical men or should there also be schools for the rapid and hence incomplete training of students?"

The pros and cons of the practice of training so-called "semi-qualified" or assistant doctors are discussed and the possible alternative of auxiliary medical staff under efficient supervision by doctors trained on European lines is indicated.

"European medical science is everywhere invading Asia, where it encounters what has remained of the old medical lore of Hindu medicine, the Arabian school and the old Chinese institutions, all of them based upon traditional empiricism. The importance of all this should not be underestimated, and official medical science, over-confident of its own infallibility and of the inferiority of this ancient popular medicine, has made the mistake of scorning it. Yet many an old precept can be found which accords with our own views, even though put in a somewhat different form. Thus, frequently we strongly oppose the use of the medicinal herbs and other substances of popular Eastern medicine, forgetting that our own pharmaceutical industry has produced, in addition to sound and valuable medicines, much that it would have been better never to administer to any sufferer.

"The study of these ancient medical cultures and of their remaining vestiges would be of value. They should have a place in the training, so that the young doctor may have at least an elementary knowledge of these questions when he begins practising. Such knowledge is essential if he is to adapt himself to his social environment.

"Lastly, it would be desirable honestly to consider how far these old medical traditions can be reconciled with our own principles, instead of rejecting them in a body as useless and obsolete. This, too, is a subject on which an exchange of views would be desirable: it has incidentally been broached already by a Commission appointed by the League Health Committee, and might with advantage be taken up again." (Pp. 21-22).

RURAL RECONSTRUCTION AND COLLABORATION OF THE POPULATION.

The second chapter of the preparatory report begins by pointing out that "there is no more familiar cry in the newspapers of every Far Eastern country than rural reconstruction. It is also a cardinal point in the policy of Governments and in the activities of voluntary bodies and charitable associations of all kinds. This is

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particularly the case in India. The recent Royal Commission on Agriculture in that country reported :

' If the inertia of centuries is to be overcome, it is essential that all the resources at the disposal of the State should be brought to bear on the problem of rural uplift. What is required is an organised and sustained effort by all those departments whose activities touch the lives and the surroundings of the rural population.'

" Later pronouncements by the Viceroy have declared that this is the policy of the Government. It is clear too, that the policy of the other countries visited by the Commission is actuated by a similar view.

" It is perhaps somewhat strange that this concentration of interest in the rural problem should occur simultaneously in all these countries and that it should be so recent and so comparatively sudden. But it is indisputable that a re-orientation of governmental policies is taking place and that the needs of the distant and inarticulate peasant are being weighed in the council chambers where hitherto his voice has been little heard." (Pp. 39-40).

A gradual awakening is occurring among large sections of the rural population in these lands.

"With the perception of the possibility of improved conditions of life is growing the desire to attain them. The progress of education is having its effect. Interest is being shown in the improvement of health, in economic problems and in all matters which affect the maintenance of a reasonable standard of living. The dullness of village life is being dissipated by the dawn of rural reconstruction. No longer does all the peasantry live, as in the words of the Malay proverb ' like a frog under a cocoon shell, in a tiny world of its own ' " (p. 44).

In this connection, the importance of education and of the spread of the co-operative movement is stressed, and methods by which health authorities enlist the interest and support of the peasants are described.

SANITATION AND SANITARY ENGINEERING.

Chapter 3 of the report covers the subject of sanitation and sanitary engineering. The Preparatory Committee begins this chapter by pointing out that "modern hygienic habits are often difficult to inculcate in the East because of customs of long standing. Thus, peasants may be driven by compulsion to construct latrines, to make openings in their dwellings, or to protect their wells; but unless they can be convinced that these measures are useful, or at any rate shown evidences that they have been adopted with satisfactory results by their neighbours, the latrines they have constructed will frequently remain unused, the openings will be blocked up, and, despite the fact that a hygienic well is available, water will continue to be drawn from the river. Consequently, statistics of sanitary improvements should be interpreted cautiously. The work of persuasion, which postulates for its success close contact with the population, can advantageously be left to health centres." (Pp. 49-50.)

Housing, drinking water supply, latrines, manure and household refuse, and fly control are all discussed in this chapter.

NUTRITION.

" Investigations into the state of health of the peoples of the East, no matter what their starting-point, lead back invariably to the question of nutrition. Dietetics is a branch of science which has a variety of aspects in Asia; there, even more than elsewhere, dietetic research required the close co-operation of chemists, physicists, agronomists, physicians, veterinary surgeons and economists. It is therefore to be hoped that this necessary contact will be established as a result of the Conference.

" The prevailing opinion is that the state of nutrition of the populations of rural districts is not wholly satisfactory in any of the Asiatic countries. It is thought that, of the 1,150,000,000 inhabitants of that continent, not less than 75% have a diet below the standards fixed by European science. From various publications, and from the information that the Committee collected during its tour, it appears that a large part of the population is living on the border-line of the minimum requirements, while millions are even below that level.

" These statements should, however, be accepted with some caution, because an examination of the studies so far made in Asia shows that few accurate statistics are available.

" Whereas in other continents there has been on occasions over-production of food at different times and places, so that production has been restricted and food even destroyed, this has never occurred in Asia. Everything produced is always quickly consumed, and, so far from there being a limitation of crops, the dominant question everywhere is how to increase them. An exception may be made as regards a few articles intended for the world market, such as sugar and copra.

" The food problem in the East is almost exclusively a rural problem, since more than 90% of the population live outside the towns." (Pp. 55-56).

This chapter reviews such subjects as the composition of the diet of the rural populations; the chemical composition and biological value of the different food-stuffs; different diseases of alimentary origin; and the proportion of the family budget spent on food.

The final remarks of this chapter are to the effect that " a well-fed and healthy population is vital to every country for its development and future. But, in all Asiatic countries, only relatively trifling sums are allocated to the detailed study of national nutrition or to attempts to improve it.

" In some places, the authorities think this is a field that should rather be left to private initiative. The public authorities still fail to appreciate the great importance of food problems. Only in the event of a war or economic depression do they decide to act.

" The growth of the population and the ensuing increased importance of adequate nutrition will certainly help to wean most Governments from this short-sighted policy. The assertion often made by the authorities that very primitive peoples show an unfailing intuition in regard to their food supply in time of need, is obviously exaggerated, and indeed, is contradicted by practical experience. A small measure of intuition there certainly is, but it can easily be overrated.

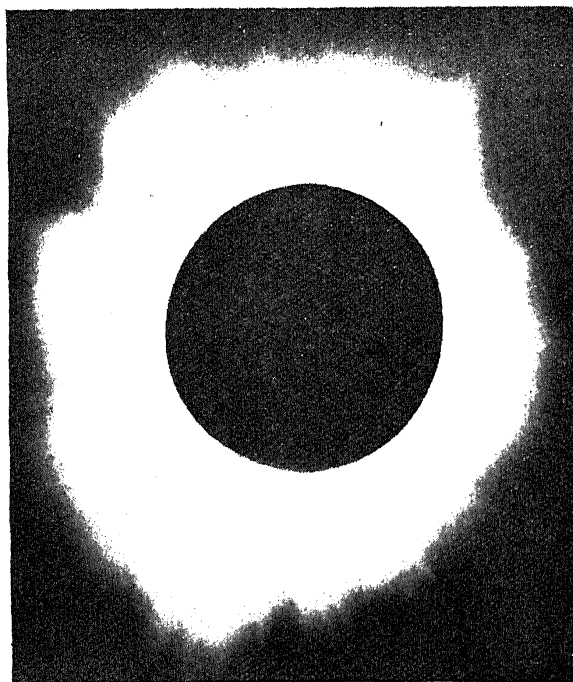
"If the Conference helps to bring about a change in the views of some of the Governments, that will in itself be an appreciable advance." (Pp. 73-74.)

The final chapter reviews the chief diseases affecting the rural population of Far Eastern countries and the measures for combating them. These diseases are: malaria, plague, ankylostomiasis, tuberculosis, pneumonia, yaws, described as "the rural disease *par excellence*" leprosy.

One of the chief results expected from the Conference is the improved contacts that will be established between the Health Administrations of different countries and colonies and even of different provinces in, for instance, India. At present, Health Administrations frequently work at similar or identical problems without the advantage of knowledge of each other's activities and their results.

The National Geographic Society—U. S. Navy Eclipse Expedition of June 8.*

HUGE streamers of the sun's corona, reaching out as much as 5,000,000 miles from the sun, and great flamelike tongues of super-heated hydrogen gas extending 30,000 to 50,000 miles above the sun's surface were among the phenomena seen and photographed during the sun's eclipse of June 8 by the National Geographic Society—U.S. Navy Eclipse Expedition which observed it from Canton Island in the mid-Pacific.



First Photograph of June 8 Eclipse as seen from middle of Pacific.

The expedition's observations of the eclipse are reported to be highly successful, although the complete scientific results will not be known until after months of study of the hundreds of photographs, spectrographic records and other data that were obtained during the three and one half minutes of darkness.

As in previous eclipses the astronomers again found evidence of the presence of "coronium", a mysterious element in the sun's corona. Coronium is believed by many astronomers to be some element already known, but existing in the sun's corona in a chemical state not familiar to scientists on earth. The expedition has not yet had time to determine whether its records show existence of any elements on the sun not previously known.

Using a process new in eclipse work, the expedition successfully measured the percentage of the light of the sun's corona that is polarized. These records are expected to prove valuable in study of the composition of the corona, which at present is a scientific puzzle.

CORONA STREAMERS CRISSCROSSED.

The shape of the corona was nearly circular, which is usually the case when the number of sunspots is approaching a maximum, as at present. Photographs show that the streamers of the corona are crisscrossed in many directions, perhaps because the surface of the sun is now extremely turbulent. The total amount of light from the corona was measured and found to be about one-half that of the full moon.

A painting of the eclipse was made by Charles Bittinger, Washington artist. He noted the colours and general appearance of the eclipse during totality and is now adding the finishing touches to the picture.

Dr. Gardner, with the aid of an apparatus which equalized the amount of light reaching the plates from different parts of the corona, photographed both long streamers of the corona and the prominences, or hydrogen flames extending up from the sun's surface, on the same plate with good definition. He also photographed the eclipse on colour separation plates, which record the red, yellow and blue ranges of colour separately. These pictures were made with special plates which carried their own filters, thus eliminating the loss of definition which usually arises when filters are used with lenses of extremely long focal length. Later, these can be combined in such a way as to give an accurate colour photograph of the eclipse, with the aid of the colour values as depicted in Mr. Bittinger's painting.

USEFUL TIME DATA GATHERED.

Mr. Willis and Captain Hellweg checked the times at which the eclipse began and ended and found that the Naval Observatory had predicted these within a few seconds of their actual occurrence. This check on eclipse timing will be extremely useful to the Observatory in its calculations of the movements of the sun, moon and earth, which are used in determining accurate time for everyday use.

Many photographs were obtained of the total eclipse with various lengths of exposure, and with several colour filters, showing the corona and prominences in good detail, and motion pictures of the entire eclipse were taken.

Tests of radio reception during the eclipse indicated that apparently there was less fading of signals during the time that the sun was darkened by the moon than during daylight.

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