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## THE SCIENCE CO-OPERATION OFFICES OF THE UNESCO

WHEN the United Nations Organisation (UNO) started its activities, it created—or took over from the former League of Nations—a number of so-called specialized agencies, which had to deal with certain particular problems of international importance. One of these agencies is the World Health Organisation (WHO), the task of which is an international campaign against diseases, especially infectious diseases, and epidemics. Another specialized agency is the Food and Agricultural Organisation (FAO), set up to deal with the acute food shortage during and after the war. The United Nations Educational, Scientific and Cultural Organisation (UNESCO) is another of these specialized agencies, which took over the heritage of the Institute International de Co-operation Intellectuelle created by the League of Nations. There is no need to explain the activities of UNESCO in this country where interest is focussed on it and there exist such excellent descriptions of its activities as the booklet published by the Department of Information and Broadcasting of the Government of India.† It suffices to say

that the activities of UNESCO being manifold, they are dealt with in various sections within the Secretariat, the headquarters of which is in Paris. One of the sections of UNESCO is devoted to exact and natural sciences and its activities are based on the fact that science and its applied forms (agriculture, medicine, technology, etc.) are playing and will increasingly play an intimate part in all human activities.

Scientific research can make human life healthier, easier, safer and more comfortable (although it can make it more horrible as ever before, too). To ensure that science can freely develop its peaceful aims for the benefit of humanity an international collaboration of scientists and scientific institutions is needed. In our times science cannot be effectively studied individually; scientific research is mainly based on teamwork and a general pooling of the results of man's investigation of nature is essential. Scientific collaboration on international lines is not new discovery. In the XVII century the first academies appointed, from their foundations, foreign secre-

taries to take charge of the correspondence with members of the world community of observers in other countries. But the formal organisation of science internationally was begun only in the XIX century when the custom grew up to hold large "international congresses". Later from these periodically held congresses the system of international unions developed permanent bodies to deal with international problems within a limited subject-matter. These unions are to-day united into an International Council of Scientific Unions and represent an effective tool of international scientific collaboration.

During World War II another type of international scientific collaboration developed. Some of the governments composing the present United Nations set up in one another's capitals "Science Co-operation Offices". The crucial importance of scientific knowledge to the conduct of war made it necessary to ensure that the democratic countries pooled their information. Penicillin, Radar and the Atom Bomb are all cases in point. In contrast to the scientific congresses and the International Unions the wartime science co-operation offices were not confined to any one particular science. But they were bilateral or restricted as to national scope. The largest of these offices during World War II were the British Commonwealth Scientific Office in Washington and the United States Scientific Mission in London. But there were many others, such as the French Scientific Missions in London and Montreal, the Australian Scientific Research Liaison Office in London, the Office of the Australian Scientific Counsellor in Moscow, etc. Most of these were mainly concerned with exchange of information concerning war sciences. There was, however, one such office which dealt not only with war sciences, but with scientific matters concerning agriculture, industry, pure and applied sciences for reconstruction, etc., as well. This was the Sino-British Scientific Office in China (Chungking). From the work of this office and similar other activities arose in the minds of a number of persons more or less simultaneously the realisation of the intense value of chain of such offices in peace time.

UNESCO took up this idea with great enthusiasm. Dr. Needham, who was head of the Sino-British Scientific Office in China during the war, developed in his capacity as head of the Natural Sciences Section of UNESCO a scheme of such offices on an international scale for peaceful purposes. But

many others have expressed similar ideas. One of the leading scientists of this country, Dr. (Sir) S. S. Bhatnagar, President of the National Institute of Sciences of India, reached exactly the same conclusions in an article of the booklet of the Department of Information and Broadcasting mentioned above ("Science and International Co-operation", page 27 ff.). His idea of "regional scientific co-operation stations" corresponds in all details to the Science Co-operation Offices (sometimes called Field Science Co-operation Offices to denote their regional character) of UNESCO. The great value of this type of international scientific co-operation in addition to the activities of the International Unions is obvious. The Unions are not limited by country, but they are limited as to subject-matter. The Offices are not limited by subject-matter but their activities are devoted to that part of the world in which they happen to be. Thus the two systems of international scientific co-operation complete each other in a most fortunate manner.

UNESCO has a formal agreement with the International Council of Scientific Unions by which it will be able to promote their activities (and has already substantially done so, supporting international congresses, paying for their publications, etc.). In 1947 it began to establish a system of science co-operation offices, in various regions. It started with three offices, in Riode Janeiro (for Latin America), in Cairo (for the Middle East) and in Nanking (for the Far East). The fourth office has just recently been opened in this country (as reported in "*Current Science*," May issue, page 169), following the urgent appeal of India's delegates at the last General Conference of UNESCO.

The Office is provisionally lodged in the Science Buildings of the University of Delhi, the authorities of which have shown a really cordial spirit of help and understanding. This gesture is most encouraging for the future activities of the Office which will depend to a great extent on the support and readiness to co-operate of the scientists and scientific institutions of this country. The question of finding definite lodgings and the possibility of establishing some branch-offices in great scientific centres of South Asia are still under consideration.

Finally, a few words may be said about the proposed activities of the Science Co-operation Office of UNESCO in this country and other parts of South Asia. One of the first aims is



to establish and maintain personal contacts and cordial relations with government departments concerned with science and with scientific societies, university faculties, research institutions and associations as well as with individual scientists and technologists of the countries of the region. Furthermore, the Office wishes to act as a clearing house and information centre for the supply and distribution of scientific literature, essential scientific equipment and material, ensuring that they reach the proper recipients. Even unpublished data and raw ideas and suggestions should be supplied and distributed whenever possible. The office wishes to assist with all problems of scientific documentation, e.g., translations, abstracts, microfilms, reprints, etc. It wishes to facilitate the outward flow of scientific and technical reports from laboratories and other sources as well as scientific journals. From time to time the Office will inform the scientific world about interesting work being carried out in the sub-continent. A further aim is to arrange the exchange of scientific correspondence and manuscripts, scientific papers, articles and reviews for publication. A scientist once said, "A scientific post office requires the qualities of a 'department of insufficient addresses' for its aim should be to ensure that every communication reaches its proper destination, a destination which the author himself may only vaguely know." The Science Co-operation Office of UNESCO wishes to be such a post office too. It will also assist in the exchange of persons by making suggestions for travel grants to UNESCO or to the International Unions, as far as such grants are available. Of course, the Office will collaborate with

bilateral scientific missions and scientific attaches within the region and will co-operate with and advise when possible other specialized agencies of the United Nations, such as FAO, or WHO. The Office will also assist, whenever possible, in the exploration of the possibilities of the foundation of international scientific laboratories and observatories in the region. (For South Asia, at the moment, projects of an International Institute of Fisheries on the shores of the Indian Ocean, the internationalization of some of the Indonesian research institutions and as a later scheme the establishment of an International High Altitude Research Institute on the slopes of the Himalayas are under consideration.) Assistance will be given in the study of the feasibility of international stock-rooms, e.g., pure chemicals, new materials, radioactive isotopes, type-cultures, pure line strains of laboratory elements and of plants, etc. Finally, an important aim is to assist in the compilation of a world register of scientific institutions and scientists.

There are several means by which these aims and tasks may be realized. But the most important of them is the active help and willingness to co-operate of all the scientists and scientific institutions mentioned above. If this will be granted, the UNESCO's Science Co-operation Offices will be able to do their share in bringing scientists of the world closer together, and by this aiding the maintenance of peace and improvements of living conditions of the peoples of the world.

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†"UNESCO" Modern India Series, I, 1946.

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## INDIAN JOURNAL OF DAIRY SCIENCE

**WE** have received a copy of the two numbers (March and June) of the *Indian Journal of Dairy Science*, the official organ of the Indian Dairy Science Association. This quarterly according to the Editor, is "the outcome of a long-felt desire on the part of all persons concerned with Dairy Science in India to find a satisfactory medium of expression to cover the large and growing developments in the science and practice of dairying in this country and to serve as a link between scientific workers engaged in different parts of the world."

The issue contains six original contributions on various aspects of Dairy Research, viz.,

Studies on Cotton Seed Feeding to Milch Animals, Composition of Milk Fat of Various Species of Animals, Phosphatases in Milk, Comparative Study of the Ten Minutes' Resazurin Test, Storage of Indigenous Butter and Studies on Vegetable Rennets. Some of the articles, however, do not appear to have received the same degree of editorial scrutiny as the rest.

The get-up of the Journal, considering the present conditions of printing in this country, should be regarded as excellent. We wish the Journal an eventful and uninterrupted career in the service of the pure and applied aspects of Dairy Science.