

There are numerous difficult problems to be solved in connection with the development of Indian fisheries. Dr. Prashad states, "The intricate problems concerned with the proper development and exploitation of the fisheries are often so much more difficult of elucidation and solution than in other industries, that only a carefully planned, long-term scheme of research and experimental work would seem to meet our difficulties. Various physical and biological factors which influence the abundance or scarcity of fishes in any maritime area are depth, temperature and salinity of the water, nature of the bottom, weather conditions, state of the tide, time of the day, season of the year, migrations of the fishes following those of organisms which form their food or in response to reproductive instinct, and several other factors. In European and American waters, sustained and well-directed research by large bands of trained marine biologists of all nations extending over many years has gone a long way towards elucidating the relative influences of nearly all these factors, and making available detailed information on the biology, age, life-histories, food, rates of growth, migrations, etc., of most of the important food-fishes. No such data are available for Indian species of marine fishes. There are similar problems in regard to the freshwater and estuarine fisheries of India awaiting solution, but no real progress is possible until accurate and detailed information on these basic points becomes available." Other problems connected with the fishing industry relate to the adoption of deep-sea fishing, devising better fishing craft and fishing appliances, organising curing, smoking, canning, refrigeration, quick transportation, marketing of fishes and such others. Further there is the problem of organising subsidiary industries such as the manufacture of fish-oils, guano and fish-meal. It may further be pointed out that the hydrographical and biological conditions of the fisheries and the habits of fishes in our tropical waters are so different from those in the Western countries that a blind application of the Western fishery

principles to solve these problems may prove inadequate and often useless. It is, therefore, necessary that each problem has to be carefully studied with particular reference to local conditions and appropriate solutions found.

The magnitude of the importance of fishery development in India cannot be over-emphasized. No dietetic improvement can be planned for the people of India without a programme for the rational exploitation of its fishery resources. The various provincial and the state governments in this country particularly the Central Government should devote its earnest attention to the subject of fishery development and give the subject an important place in their Post-War Planning.

Till such time as the Central Advisory Fishery Research Council and the Fishery Research Institute are formed, the scope of the "Fish Committee" of the Imperial Council of Agricultural Research may as well be widened to secure an effective and fruitful co-ordination of fishery investigations among different provinces and states. The Fishery Experts in different parts of India should be invited to serve on the reconstituted and enlarged committee. They have acquired an intimate knowledge of the present condition of the fisheries in their respective provinces and states, which will be very helpful in formulating a correct policy regarding the organisation of fishery development in India. Important investigations can immediately be started with the co-operation of fishery departments and scientific institutions in the country. The Madras Zoological Research Laboratory has recently carried out some outstanding work and with additional staff and equipment, the Institution will no doubt be able to successfully solve marine biological problems connected with fishery research. Similarly the Marine Biological Stations at Trivandrum and West-Hill can conduct such investigations on the West Coast. The example of the Department of Zoology of the Calcutta University which has worked out certain fishery problems, is worthy of emulation by other universities in India.

NUTRITIVE VALUE OF DEHYDRATED VEGETABLES

DEHYDRATED vegetables are now being manufactured in large quantities in many belligerent countries and it is important that their nutritive value should be studied. A good deal of work on this subject has been carried out in the Indian Research Fund Association Nutrition Research Laboratories, Coonoor, under Dr. W. R. Aykroyd, says the report of the Scientific Advisory Board of the Indian Research Fund Association for the year 1943.

Steam-blanching cabbage was found to lose vitamin C more rapidly on storage than cabbage blanched by dipping in boiling water. Loss of vitamin C in dehydrated vegetables prepared by the so-called "pre-cooking" method was more rapid than in vegetables prepared by other processes. The general conclusion arising out of a considerable amount of work on the vitamin C content of dehydrated vegeta-

bles is that these cannot be relied upon as antiscorbutics after a period of a few months' storage.

While carotene is somewhat more stable than vitamin C in dehydrated vegetables, very appreciable losses occur on storage. After 20 weeks' storage at 98° F, bitter gourd, cauliflower, carrot, pumpkin and potato lost from 35 to 65 per cent. of their original carotene content. Losses in the mineral content of dehydrated vegetables during reconstitution and cooking amounted to 60 per cent. When in the U.S.A., attending the United Nations Conference on Food and Agriculture, Doctor Aykroyd collected considerable literature on the effect of dehydration on the nutritive value of vegetables and other foods, a subject which is being intensively studied in England, Canada, the U.S.A. and Australia.