

The progress of the Lac Cess Committee during the last fifteen years of its existence exhibits equally depressing features in spite of a large volume of reported investigations both in India and abroad. The root of the depression lies in the fact that Indian workers who were induced to make useful though disjointed contributions to existing knowledge both in India and in London, have never been entrusted with the necessary freedom and authority to consolidate their ideas to their logical consummations. The tendency has been more to fill up existing jobs with indifferent personnel, than to discharge a national responsibility with due consideration of the claims of professional and economic interests involved therein.

The only way to remedy this state of affairs lies in the constitution of a permanent committee of leading Indian scientists of all sciences, pure and applied, who should be authorised by the Government to appoint their own expert sub-committees for each commodity to initiate new schemes of research in relation to the particular commodity, with adequate funds for the creation of necessary laboratory and educational facilities at suitable centres throughout India.

The idea of sending scholars abroad for specialised training with a view to develop our country's resources has very often proved to be more a recreation than a real aid to the creation of suitable opportunities for local scientific talent for the self-reliant organisation of suitable programmes of research. It should be remembered in this connection that in spite of ignorant and ignoble attempts by interested

parties to disintegrate the scientifically organised communal solidarity of India, the communities in India have still not lost their hereditary and inborn professional responsibilities and efficiencies. The disinterested research scholar, the public-spirited administrator, the philanthropic businessman and landed aristocracy, and the self-respecting skilled artisan are still alive in India, each with his inborn professional intuitions and equipment. It should be the sole aim of each Commodity Committee to bring together the goodwill and enthusiastic co-operation of members of each of these four communities into active collaboration in an experimental research laboratory intended for the exploitation of the industrial potentialities of each of the valuable commodities of India.

In the writer's opinion there is no half-way house between a free and full communal prosperity for India and the necessity for the establishment of laboratory facilities for the mutual understanding and planned collaboration of members of the professional communities of India in the cause of the economic utilisation of our country's material resources in the immediate future.

It is therefore, earnestly hoped that before long, there will be a definite change of orientation of policy in the working not only of the present Commodity Committees, but also of others that are likely to come into being in the near future, so as to make these organisations real and powerful instruments for the creation of National outlook, professional personnel, and economic communal prosperity.

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### SIR A. L. MUDALIAR

THE appointment of Sir A. Lakshmanaswamy Mudaliar as Vice-Chancellor of the University of Madras for a second term of office is an event which gives the deepest satisfaction to educational circles in South India. At this time when many problems relating to University Education await solution, the Madras University is fortunate in having one of the foremost of Indian Educationalists at the helm of affairs to guide her destinies.

After graduating from the Madras Christian and Medical Colleges, Sir Lakshmanaswamy began his career as a member of the Provincial Medical Service and was connected with the Government Hospital for Maternity and Child Welfare, Madras. He joined the hospital as an Assistant and later rose to the position of its Chief. The very high standard of his work and scholarship earned for him a front rank in the medical profession as a leading authority on Obstetrics and Gynaecology. He contributed much to the scientific side of his subject, wrote a well-known text-book, and trained a large number of medical men for professional as well as scientific work. All this was duly recognised by his election to the Fellowship of the Royal College of Obstetricians and Gynaecologists, England. His scientific enthusiasm did not minimise the human interest he took in his work; all through his career, when administrative responsibilities of various

types weighed heavily, he found time to continue his professional work and maintain contact with the Hospital to which he was so long attached and for which he did so much to develop it as the leading Institution of its kind in India. The medical profession in South India also knows him as an inspiring teacher, for he was Lecturer and later Professor of his subject at the Madras Medical College. His appointment in 1937 as Principal of the College was a notable event, as it marked a departure from custom, he being the first Indian to hold this key position of medical education in South India.

Sir Lakshmanaswamy's connexion with the Madras University dates from about twenty-five years ago, as a member of the Academic Council and the Senate. His deep study of University problems soon found him in the front line of University administration and in the Syndicate, whose membership he held without interruption. The period of his active work at the University with successive Vice-Chancellors, particularly from 1930-1940, was one of the most fruitful periods of expansion of its activities, in the starting of the different Research Departments and adequately housing them in the University area. Along with the then Vice-Chancellor, Sir K. Ramunni Menon, he took the keenest interest in the starting of the three Scientific Laboratories of the University, viz., Botany, Zoology and Biochemistry,



in 1933. He acted as Vice-Chancellor in 1941 and was elected for his first term of Office in 1942.

The first term of Office recently completed by Sir Lakshmanaswamy is noteworthy for the great interest which the Madras University took in fostering Technological Education in South India. The importance of Technical education so as to train suitable personnel for industrial work has been stressed in our columns from time to time. Chemical and allied industrial development has been particularly backward in South India owing mainly to the absence of suitably equipped training centres. With his characteristic zeal Sir Lakshmanaswamy took up this cause and succeeded in enlisting the support of the Government and a leading Industrialist, Dr. Alagappa Chettiar, with the result that it was possible, with the co-operation of the Government Engineering College at Guindy, to open a College of Technology in 1944. This College began with courses in Chemical Engineering and has already developed further with

arrangement for courses in Textile and Leather Technologies, subjects of special interest to industrial development in South India.

Among the other achievements of the Madras University during this period, particular attention should be drawn to the starting of new graduate courses in Commerce and in Nursing, and to the organisation of short-term post-graduate courses for the Medical Profession.

In the various reconstruction programmes for this country, Sir Lakshmanaswamy has already put in much notable work on the Health and Survey Committee of the Government of India, as the Chairman of the Educational Reconstruction Committee of the University of Madras and as Member of many of the Committees constituted by the Government of Madras. Our very best wishes go to him for the success of his future work and the continuation of the sound and energetic policies on Educational and Medical problems that have so characteristically come from him.

## ECONOMIC UTILISATION OF SHARKS IN INDIA

BY

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**S**HARK LIVER OIL industry in India to-day represents one of the war-born industries, whose survival capacity during the post-war period is solely dependent upon the extent of support which the industry would receive from the Central Government. The industry when consolidated and developed would not only afford employment to tens of thousands of fishermen but also provide a supplementary and desperately needed source of nourishing meat and a rich and exclusive source of an indispensable group of vitamins; in addition, other portions of the carcass now discarded could be made to yield a wide variety of valuable products: hides, active principles, biologicals and fine chemicals. As in the case of herds of cattle and flocks of sheep, the sharks need not be raised; they breed naturally in the depths of the coastal waters of this sub-continent; controlled fishing and scientific management of sharks will ensure a steady supply of this raw material. The sharks, if properly utilised, will serve to conserve the cattle wealth of the country, which has got depleted to an alarming extent during the war period. These are circumstances of compelling significance which entitle the industry to every form of Government support and protection.

In consideration of the national importance of the industry, the Central Government may be expected to grant adequate protection against aggressive foreign competition and extend generous financial support for the prosecution of researches on the fundamental and technological aspects of the industry.

At the moment, the shark liver oil industry, which has made some promising headway during the war, is overshadowed by the complacency, the uncertainty and the indecision which constitute a lamentable feature of post-

war planning in this country and by the imminent commencement of the whaling operations by Anglo-Norwegian interests as revealed by a recent broadcast. The threatening aspect of this enterprise becomes apparent if attention is called to the recent discovery that the whale liver is the richest source of "Kitol" which on simple distillation gives vitamin A; This is a direct challenge to the shark liver oil whose recognition as one of the richest sources of vitamin A is largely due to the pioneering investigations of Dr. Sunder Raj and his collaborators.

Since 1940, the Departments of Fisheries in the several maritime Provinces and States have intensified their efforts and achieved a substantial measure of progress in the production of shark liver oil; some of them have also investigated the process of filletting and curing the edible portions of the shark by improved methods. We have not been able to secure reliable data regarding the annual production of shark liver oil in the country; much less have we been able to obtain information with regard to the total number or weight of sharks caught from the coastal waters of India. Setnal (1945) is of the opinion that during the past 4 years an output of a million and a half pounds of oil may not be an extravagant claim. Considering the widespread prevalence of night-blindness and general malnutrition in this country, and assuming that an average deficiency (computed on the entire population) works out to about 20 per cent., the country's requirement of shark liver oil of 10,000 i.u./per gm. potency, will amount to about 28 million pounds per annum. Taking 100 lbs. of liver as the average yield per shark, and assuming that 50 per cent. is the average yield of the oil, it can be calculated that 576,000 sharks will have to be caught per year to satisfy the