

from 50 to 60 per cent. of their original cost . . . we should like to impress upon Government and the business community in India the necessity and urgency of constituting in both countries an organisation which would locate available equipment, inspect and report on it when necessary, canalise all enquiries from India and furnish machinery for their procurement from the various surplus disposal boards.

"We have returned from our trip enriched with first-hand knowledge of the economic and industrial conditions and prospects in Great Britain and the United States and with a better informed appreciation of the significance, scope, needs and complexities of modern industry. We have come back more than ever convinced that only by means of large-scale industrialisation backed by massive scientific research and education, can India hope to emerge from her poverty and distress and rapidly build up the high standard of living to which her people are entitled and so desperately aspire."

This valuable Report does not make pleasant reading to those who believe that the industrial development of India is merely a question of planning on paper, ordering the requisite equipment from just across the counter, install it and begin to collect profits. It is refreshing to notice the emphasis placed by these veteran industrialists that the large-scale industrialisation of the country should be "backed by massive scientific research and education". The Delegation have done a signal service to the country in publishing this Report which is characterised by objective and critical discernment.

COMMODITY COMMITTEES AND COMMUNAL PROSPERITY

IT was indeed a happy moment when the Member of the Government of India for Education, Health and Lands, struck the fruitful idea of creating Commodity Committees for ensuring the education and collaboration of the communities of India for the development of their economic resources. This plan has been welcomed by *Current Science* as an effective instrument for the creation of a new epoch of scientific and industrial awakening in the country.

At the present time five such Committees have been constituted and are in a working condition, namely, The Indian Central Cotton Committee, The Indian Lac Cess Committee, The Indian Central Jute Committee, The Vegetable Oil Committee and the latest addition, the Coconut Committee.

Considering the possible expenditure of public money and material on these Committees and expectations of increased economic prosperity arising from their activities, it seems necessary to review not only their past working so far but also to indicate the general policy which they must pursue in order to realise their full potentialities of development.

At the outset it is necessary to emphasise that in the creation of institutions of this sort, the main object should be to foster an original output of new thoughts, new knowledge and new modes of utilisation of

the valuable commodities of India providing suitable opportunities for self-expression of national professional talent in the connected fields of scientific research, skilful industrial and agricultural application of new knowledge and business enterprise required for large-scale production of new products. Obviously the best way of realising this consummation is the organisation of an experimental industrial laboratory for each commodity under the leadership of competent and patriotic leader of scientific research interested in the subject who will be a whole-time officer adequately financed and authorised for the free exploitation and investigation of the industrial and scientific potentialities of the commodity concerned. Without such a nuclear activity it will be useless to expect an adequate economic development of the resources of this country. Judged from this standpoint scientific India can well complain that the current administrative policy has failed to give the scientific Indian researcher the leading place in the constitution and working of these Commodity Committees. On the other hand, by placing commercial and political foreign interests at the head of affairs in the creative realm of future developments for the economic benefit of the country the cart has been put before the horse at too early a stage of our Country's new era of industrial regeneration.

To take one example, the oldest of these Committees, namely, the Indian Central Cotton Committee, has been in existence since 1921 and in a Report of their work during the last twenty years published in 1942, the attention which they have paid to Indian scientific research is so scanty and indifferent that it almost deserves thorough overhauling. Below is quoted a paragraph on "Research Students" from page 31 of the Report in illustration of the importance given to Indian research by this Committee, and of their utter neglect of leading national scientific talent in organising their programmes.

"In the beginning, the Committee had perforce to undertake the training of research scholars in the various branches of science pertaining to cotton for employment on its research schemes or in the Provincial Agricultural Departments. Gradually, however, the necessity for this has disappeared and scholarships are now, generally speaking, only granted when need for specially trained workers arises in connection with the Committee's schemes or in Agricultural Departments. Sometimes scholarships are also awarded for specialised training at recognised institutions abroad or in the Committee's Cotton Genetics Research Scheme at the Institute of Plant Industry, Indore."

If, on the other hand, there had been a continuous harnessing of all-round National Scientific talent in the elaboration of schemes of research for the adequate utilisation of cotton and its associated by-products, India might be producing by now, commercial quantities of furfural, laevulinic acid, raffinose, tocopherol and a few other valuable industrial products for internal consumption and prosperity (unpublished work of K. Karamchandani under the writer's guidance).

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.

P. RAMASWAMI AYYAR.

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,