

ADDRESS BY THE VICE-CHANCELLOR ON OFFICIAL OPENING OF THE UNESCO SEMINAR ON THE IMPROVEMENT OF UNIVERSITY SCIENCE EDUCATION IN AFRICA

In his opening address the Vice-Chancellor told the UNESCO Seminar that it had become a common place to say that we were living in a revolutionary age. The revolutionary sweep which had embraced the whole globe at the present time was not merely political or economic. What was happening in these two aspects of our life was largely result of deeper revolutions among which were of prime consequence: the revolutionary advance of knowledge and what had been termed as the revolution of rising expectations. In his address he pointed out that among these factors growing out of this dominant condition and heightening the importance of Universities was the mounting value of knowledge to every society today. By knowledge the Vice-Chancellor did not mean technical competence alone in spite of the technological bent of modern civilization but every form of intellectual which increased man's understanding of physical nature, his control of its force and his exploitation of its resources as well as his understanding of his own nature and his ability of enhance individual and collective human life. No system of government, no ideology, no economic, structure, no form of social organisation, no educational set-up, was today safe or capable of progress unless it infused and sustained by the spirit and the cumulative legacy of positive knowledge. And the gaps that now existed between nations in political power, in economic wealth, in cultural accomplishment were basically derived from the gaps in the respective earned capitals of knowledge which these nations possessed. The University, as the major social institution engaged in the production and the transmission of knowledge was, therefore, increasingly crucial to any society, no matter what its stage of development was.

The place of Science in development was recognized by almost every country in Africa. Here in Kenya the Government had established the National Council of Science and Technology to advise it on 'national



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Science policy'. This was because the 'Government considered that science and technology were essential tools to the socio-economic development of the Country'.

The development Plan further stated that 'science and technology would be looked upon to provide the changes required for development and the scientific foresight and technological forecast for long-range planning'.

Talking about the Universities spirit the Vice-Chancellor said that we at the University of Nairobi were encouraging most of our students to enter Science and Maths-based Faculties because a balance between education in the arts and in the sciences and technology was something which had to be watched with great care and it was absolutely essential that the balance was maintained. The idea therefore was taking an interest in student's preference, the resources of various areas in education and the needs of the country as far as industry, the professions and commerce were concerned because the nation's productive capacity depended on the skills of its Managers, Scientists and Technologists and no country could afford a shortage of such skills.

Universities therefore, he continued, must concern themselves with present problems of the day by generating the background knowledge and information that could help political policy makers to take the decisions which were needed and people should know in order to form judgements and take action.

Curriculum change had to be evolutionary. It was all very well to identify shortcomings and most of us did in the system; but it was quite another to affect appropriate change. A great deal of research was needed before changes were introduced and

of course limitations of manpower and money had to be taken into account.

There was need of innovation in communication techniques in Universities, particularly with the aim of evolving patterns of dissemination of knowledge within the faculties of science which students from our schools could more readily feel at ease with.

Many faculties were complacent in this area and tend to rely wholly on the old traditional method of lecture system. A few were trying new methods like the 'self-paced' system of instruction. Clearly there was room for more such innovations as part of the continuous process of improvement of University Science Education.

There was a danger of isolationism in University Science Education, with each faculty attempting to survive on its own. Here in East Africa we had channels of exchange through the Inter-University Committee which arranged subject conferences for our three Universities. At the continental level, the Association of African Universities had been founded so as to try and achieve similar aims. So far however, only the professional faculties such as Agriculture and Engineering have attempted to establish machinery of communication under the umbrella of AAU, at the faculty level. In many parts of the world science itself was now a profession and in Africa although the present strength of 'practising scientists' may be small, we can work forward to rapid growth in the number of such manpower. One can even foresee the recruitment and hence movement of research scientists transcending barriers in Africa.

In conclusion the Vice-Chancellor said that although every nation must be the master of its own destiny, it

was also clear that in this field of science, as in others, no nation could afford to be an island in itself. For rich and poor alike, a sharing of resources and putting together of experience could only result in the enrichment of all.

The Universities represented an enormous capital and human investment made by the Government and people. It was therefore our responsibility to make them institutions of the best quality with the highest possible standards.