



UNIVERSITY OF NAIROBI

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VARSAITY FOCUS

A General Information Sheet from the Vice-Chancellor

T H E U N I V E R S I T Y

ITS OBJECTIVES, OPERATIONS
AND
ORIENTATIONS IN SOCIETY

Address given to the Academic
Community of the University
of Nairobi

by

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on

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in Taifa Hall

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PRELIMINARY REMARKS

- 1.1 I would like to express my most sincere gratitude to you all for the encouragement and warmth you have given me during my first 100 days in office as Vice-Chancellor.

I completed 100 days yesterday, Thursday 23rd August, 1979. Many of you had expressed very friendly congratulations in writing, verbally, by cable and silently in your hearts. For all this I am truly grateful. I look forward very much to continuation of the good working relations that have characterised the first 100 days. My six-year contract finishes on 14th May, 1985. By that time we shall have lived through the current 1979-1983 National Development Plan and started on the 1984-1988 one. I hope the University of Nairobi will be judged positively for having contributed its enormous expertise in helping this country to be self-reliant in the processes of planning.

- 1.2 But in order to be able to help the country to plan, the University must show that it can plan its own development. That is why special meetings of Faculty Boards have been called for two weeks starting on Monday 27th August, 1979. Each Faculty, Institute, School, Library and other units will have at least four hours meeting with the senior administrative staff. While this is going on at Faculty Board level, it must be remembered that it is at the levels of the Departments and individual members of staff where academic work occurs primarily in the form of knowledge development through research. I would therefore like every individual member of staff in this University to identify himself or herself with a specific area of specialised development of knowledge that can be itemised and stored in a computerised system of data management. It is that item which would then be identified in the University, country and the world at large as one of the strong pillars on which our tower of knowledge can continue to grow in strength and in the intrinsic value of its ivory so as to become a truly reliable national asset.

I would therefore like to see the concept of the University as an ivory tower change into one of a growing tower made of ivory of such high value that the country does not have to go and look for the same assets from any other part of the world. That value depends primarily on the people and the work they do as part of university

life. This is the work we are undertaking to plan and manage so that it is efficiently productive.

- 1.3 This address by the Vice-Chancellor is a very mild appetiser for the heavy and detailed activities that lie ahead.

2. HISTORICAL BACKGROUND

- 2.1 The establishment of the national university in 1970 opened an important chapter in the history of higher education in East Africa. This history had started in 1921 when the then colonial government of Uganda established a small technical college on Makerere Hill on the outskirts of Kampala. In the following year, the technical college was named Makerere College.
- 2.2 It was soon realised that Makerere College could become a centre for higher education for the countries of East Africa. Steps were then taken to extend the scope and level of the educational courses offered so that by 1925 plans were being made for Makerere College to start developing the necessary capability to offer courses at University College level.
- 2.3 One of the first steps taken towards fulfilling this goal was the removal of technical training from Makerere to another institution in 1928.
- 2.4 Another step was the introduction of ordinary level Cambridge Overseas School Certificate. The first candidates to sit and pass this examination in Makerere did so in 1935.
- 2.5 At this point it became evident that any further developments in higher education had to be based on systematic planning. A commission under the chairmanship of Earl de la Warr was therefore set up to look into the feasibility of Makerere becoming an East African Centre of higher education.

The Earl de la Warr Commission reported in 1937 and recommended to the colonial government that Makerere College should become the centre for higher education in East Africa, firstly as a University College and eventually as a University.

- 2.6 The Government of Uganda immediately implemented these recommendations and granted buildings and funds to the college to run as an autonomous institution under its own governing council.

All the courses offered were then appropriately advanced to two years beyond the ordinary level school certificate. A school of fine art was started and women students were admitted for the first time.

- 2.7 Seven years later in 1944 another commission, the Asquith Commission, recommended that Makerere College was ready to become a full University College. The University of London was approached with a request to take Makerere College under its wings.
- 2.8 By this time ordinary level school certificate work had been introduced into a few secondary schools in East Africa. It was therefore left to Makerere to establish advanced level work by taking the London Intermediate courses as a prelude to University admission.
- 2.9 The negotiations with London University were successfully completed and in 1949 Makerere College was renamed the University College of East Africa. Degree courses were then started there in 1950 for the general degrees of Bachelor of Arts and Science of the University of London.
- 2.10 The first examinations for these general B.A. and B.Sc. degrees were done in 1953 by 14 candidates of whom 13 passed. Professional courses like medicine were appropriately advanced internally to a corresponding university level but did not adopt the London syllabuses or qualifications to avoid losing relevance to local needs.
- 2.11 The development of university education in Makerere had apparently been assumed by the colonial authorities to be adequate for the needs of the countries of East Africa.
- 2.12 This would appear to have been the main reason why there seems to have been no plans to establish any institutions of higher education in Kenya until negotiations between Makerere and London got under way. Then in 1947 the then government of Kenya got convinced about such a need and drew up a plan to establish higher technical and commercial education in Nairobi.
- 2.13 This led to the establishment of the Royal Technical College of East Africa in Nairobi through a Royal Charter issued in September 1951. The College was to provide higher technical and commercial education for the countries of East Africa.

- 2.14 In the meantime, the Asian community in East Africa had formed the Gandhi Memorial Academy with the aim of planning and building a college of higher learning in Arts and Sciences in Kenya as a living memorial to Mahatma Gandhi.
- 2.15 This project was then merged with the technical and commercial one by incorporation of the Gandhi Memorial Academy into the Royal Technical College of East Africa. The first students to enter the College were admitted there in April 1956.
- 2.16 But it was soon realised that higher education in Kenya needed to be worked out on a more rational basis. A working party was therefore set up in July 1958 under the chairmanship of the Vice-Chancellor of the University of London to make appropriate recommendations.
- 2.17 The working party reported the following year, one of their main recommendations being that the Royal Technical College should become the second University College in East Africa after Makerere. The recommendation was accepted.
- 2.18 The Royal Technical College was then renamed the Royal College Nairobi and entered into similarly special relations with London University as applied to Makerere. Students taking courses in Arts, Science and Engineering could therefore prepare for bachelor degrees of the University of London.
- 2.19 Courses in architecture, land and building economics and commerce, however, continued to be offered for the qualifications of the respective British professional bodies.
- 2.20 All this time it had been understood that the formal ties which Makerere and Nairobi had with London University would need to come to an end sooner or later and that national institutions of higher education would be established within the countries of East Africa.
- 2.21 The first step towards this goal was taken on 28th June, 1963 when the University of East Africa was formally established as a federal university with constituent colleges in Nairobi, Kampala and Dar-es-Salaam. It started to offer its own degrees and by 1966 the London degrees had been phased out.
- 2.22 As a constituent college of the federal university, the Royal College Nairobi was renamed

University College of Nairobi. One of the first additions to the college in 1963 was the Institute of Adult Studies which had just been created by merging the College of Social Studies, established at Kikuyu in 1961, and the extramural studies which had been organised in the country by Makerere.

- 2.23 The next addition to the college was the Institute for Development Studies which was established in 1965 to undertake large scale research on contract from various government departments on economic problems of Kenya. In July 1967 the Faculty of Medicine was established.
- 2.24 When the University of East Africa was dissolved in 1970, the University College Nairobi had grown into a fully fledged national institution of higher learning and was renamed the University of Nairobi. It was further developed that year through the addition of three new faculties, namely those of Agriculture, Education, Law as well as the Institute of African Studies, the School of Journalism and its first constituent college, namely, Kenyatta University College.
- 2.25 The University of East Africa used a crest which symbolised the spirit of co-operation among the three East African countries that existed then. The crest carried the three symbols of the three countries, namely, the crested crane for Uganda, the giraffe for Tanzania and the lion for Kenya. At the top are three clasped hands, symbolising the hand of friendship and co-operation among the three countries. When the University of East Africa broke up into three national universities in 1970, Makerere and Dar-es-Salaam Universities changed their crests into national ones, with the mottos written in English on the Makerere one and in Swahili on the Dar-es-Salaam one. The University of Nairobi has never changed its crest. It is still using the one of the University of East Africa with a motto written in Latin. This crest can still be found at the entrance to the Gandhi Wing, the Faculty of Engineering building and the Library/Administration building.
- 2.26 I therefore propose to put it to you and to the University Council that the crest be changed to be a more national symbol of higher education.

3. OBJECTIVES AND PROGRAMMES

Objective 3.1

To assist in the stimulation of cultural development of Kenya.

- 3.1.1 (2.145) As environmental considerations must come to pervade development decisions taken at every level from the family to the Government, these considerations must be brought to the attention of every citizen. Hence, environmental education will be introduced in the schools, not as a separate discipline but as a dimension to be considered in the various aspects of the curriculum as appropriate. In addition, in-service programmes, seminars and workshops for teachers, planning personnel, field officers and other professionals will emphasize the need to take account of environmental considerations in their work. An environmental newsletter will also be introduced in order to disseminate current information quickly and to promote effective communication among planners and the environment-related research establishment.
- 3.1.2 (2.146) In support of these activities, a national centre on environmental research will be established to work in co-operation with national curriculum agencies and informal channels of information. This centre will conduct research and formulate environmental educational programmes thus ensuring that educational policy is based on rational and scientific analysis of facts. Apart from co-ordinating the development of projects at all educational levels, it will provide facilities for effective evaluation, dissemination and preparation of educational resource and instructional materials and the training of personnel for roles in environmental education.
- 3.1.3 (2.147) Specific policies for environmental control will influence development decisions of all kinds. In formulating and implementing these policies it is necessary at the outset to concentrate on those areas where environmental risks are greatest and to develop procedures for dealing with environmental issues as they arise.
- 3.1.4 (2.148) The first need, therefore, is to develop an information base disclosing the contemporary state of the environment in both its natural and man-made dimensions and to establish an economy-wide monitoring system so that changes in environmental condition are identified as

they occur. This system will assist also to identify malpractices leading to deforestation, soil erosion, overstocking, air and water pollution, impoverished human settlement, and destruction of wildlife. It will supply the basic information required for the identification of corrective measures.

- 3.1.5 (2.149) The second main instrument of environmental control is preventive in character. A system of Environmental Impact Reports will be introduced. All major proposed governmental, parastatal and private projects will be required to prepare such reports, and projects will be modified before implementation if environmental standards would otherwise be threatened. In support of this policy the Government will increase its capacity for conducting project appraisals which incorporate environmental factors.
- 3.1.6 (2.150) An array of environmental standards will be established over the planning period covering pollution, industrial location, reafforestation, use of agricultural inputs, and human settlements among other things. Pollution standards will be the first task undertaken. Ambient (streams and open air) standards will define acceptable levels of specific pollutions in given locations; discharge standards will limit the discharge of pollutants at their sources. Discharge standards will first be established for industries processing primarily raw materials and such intermediate goods industries as chemicals and building materials. Such standards are essential for ensuring that the desired environmental quality is attained. They will also assist in assessing the adequacy of Environmental Impact Reports, particularly in respect of industrial projects.
- 3.1.7 (2.151) Policies with respect to the use of resources and materials focus on the identification of natural resources supplies and local materials which can be used to promote economic development. The formulation of such policies over the planning period will be the joint responsibility of the National Environment Secretariat and the National Council of Science and Technology. Policies will also be formulated with respect to the rate and phasing of resource depletion to avoid premature exhaustion and ensure viable economic returns.
(Water Quality and Pollution Control)
- 3.1.8 (5.246) The goals set for this programme/in the previous Plan were attained. A network of monitoring stations has been established and the National Water Quality Laboratory has been constructed. In addition, an audit sampling unit for drinking water supplies has been organized. Staff recruitment has progressed satisfactorily in its initial stages. During this plan period an important task will be to provide additional training for water quality

control personnel including academic work at the University of Nairobi, special courses with various international organizations and in-service training programmes. Emphasis will also be put on the setting up of pollution control standards and strict monitoring will be carried out.

3.1.9

(5.37)

Traditional medicine and health care are an important part of the life of the people in the rural areas. However, more information is needed and will be collected during this plan period to determine the importance and relevance of traditional medicine with regard to both its substantive aspects and its potential link with Government institutions. The University of Nairobi will be commissioned to undertake an exercise to evaluate the role and functions and to determine the extent of our need of traditional medicine. Once completed, the Traditional Medicine Unit of the Ministry of Health will undertake investigations on the value of a number of traditional medicines, and herbs, including research in social rehabilitative methods, in an attempt to evaluate and promote such methods and substances that deserve merit. Further, consideration will be given to the manpower aspects of the traditional sector, for instance, the extent to which certain cadres of selected traditional sector practitioners, such as the midwives, might be encouraged to serve in Government health institutions in the rural areas.

3.1.10

(5.72)

During the plan period, the following steps will be enacted: (i) the organization and co-ordination of all major research activities in the country; (ii) the co-operation and collaboration with reputable research organizations and bodies at local, regional and international levels; (iii) increased attention will be given to both biomedical and health services research. In the areas of biomedical research the following diseases will receive attention: bilharzia, filariasis, hydatidosis, laishmaniasis, malaria, trypanosomiasis, leprosy, tuberculosis, plague, selected virus diseases, sickle cell disease, cardio-vascular and metabolic and nutritional diseases. Data collection and epidemiological surveillance are to form part of the research concerned with the improvements in the delivery of services; (iv) the establishment of appropriate communication channels between research activities and services within the Ministry of Health, in order to establish the link between the theoretical knowledge and action; and (v) the construction, extension, upgrading, equipping and staffing of the following research stations:

- i) The Central Institute of Medical Research in Nairobi to act as the headquarters and base for the co-ordinating role of research activities in the country.
- ii) Associate Research Stations in Alupe, Kisumu and Mombasa, to engage in various research activities such as leprosy, malaria, bilharzia, nutrition, etc.
- iii) Research Substations in Nairobi (Tuberculosis and Traditional Medicine). Lodwar (hydatidosis), Machakos (leishmaniasis), Muguga (human and animal typosomiasis), irrigation and other development project areas (changes in disease patterns as a result of development projects), etc.

3.1.11 (5.74) The proposed Drug Quality Control Laboratory will include facilities where pharmaceutical and other biological substances will be subjected to tests and analysis to ensure that they are of acceptable standard. All pharmaceutical and biological substances, produced in or outside Kenya, will be receiving the same treatment. The laboratory is to be located in Nairobi with adequate premises to house a planned Traditional Medicine Unit. It will work in close co-operation with the Medical Stores, the Pharmacy Department of the Ministry of Health, the School of Pharmacy of the University of Nairobi, the Medical Training Centre and the Traditional Medicine Research Unit.

3.1.12 (5.75) In the field of preventive medicine and promotive health, the Ministry of Health will undertake a number of health sector research projects, such as a comprehensive study to examine existing water supply and sanitary facilities, in order to provide the basis for a surveillance system; evaluation of the effectiveness of currently used methods of communication for the purpose of improving present system of health education and information; research and field studies related to food fortification, etc.

3.1.13 (5.76) The number of medicines, drugs and other methods used for treatment by "traditional medical practitioners" is considerable and some of them are effective. The Government has, therefore, decided to promote and encourage investigations and research into different fields and aspects of traditional healing. Thus, a Traditional Medicine Research Unit will be established during the plan period, to be located in Nairobi together with the Drug Quality Control Laboratory, with which it is to work in close co-operation.

3.1.14 (5.169) In conjunction with other ministries, the Corporation will support and encourage research

work of the Housing Research and Development Unit at the University of Nairobi.

- 3.1.15 (5.170) The Ministry of Housing and Social Services has been giving considerable support and finance to the housing research programme of the Housing Research and Development Unit at the University of Nairobi. The Unit explores social and technical problems of housing and community development with a view to establishing appropriate standards. It also provides services teaching in subjects concerned with housing and planning. The results achieved so far have proved of significant help in formulating a national housing policy and programme, and it is, therefore, the intention of the Government to continue giving support to this Research Unit. During this plan period, K£124,000 has been set aside for this purpose.
- 3.1.16 (1.60) Development must be accompanied by constructive changes in life styles and social relationships. Unfortunately, the process of social change occasioned by rapid development is not well understood. A first priority, therefore, is thorough and careful research on the nature of that process. The University of Nairobi is the obvious centre for such research. Significant research is already under way and indeed, it has contributed in useful ways to the formation of this plan. That research will be intensified.
- 3.1.17 (1.61) A number of the policy suggestions emerging from on-going research have already been adopted by Government. These are concerned with the changing roles of men and women, the aspirations of children, and the rejuvenation of the family as a pivotal social unit.

Objective 3.2

To assist in the stimulation of intellectual life of Kenya.

Objective 3.3

To co-operate with the Government in the planned development of higher education.

3.3.1

Programme

Expand the facilities at Kenyatta University College Campus to cater for the increasing number of students who will be training as secondary school teachers.

3.3.2

Programme

To intensify activities on arid and coastal areas;

marine science and engineering; chemical engineering; water engineering; and mining engineering as basis for the development of another university.

3.3.3

The Faculty of Agriculture at the University of Nairobi will introduce new courses at both undergraduate and post-graduate level. These will be expanded to include programmes in Agricultural Education, and Range Management. These courses will reduce the shortage of skilled graduate agriculturalists which still exist in Kenya. Enrolment at the Faculty will be increased from 300 to 750 students.

Objective 3.4

To examine and approve new proposals for new faculties, new departments, new degree courses, or new subjects of study submitted to it by any constituent college or other post-secondary institution.

Objective 3.5

To provide facilities for University education, including technological and professional education.

3.5.1

Programme

Address itself to the problem of manpower shortages to be indicated by the proposed manpower survey through its undergraduate and postgraduate programmes.

3.5.1.1 (2.136) The manpower bottleneck is serious at each of these levels—research, translation to the Kenyan setting, and maintenance. The Government will relieve these shortages as quickly as possible by continuing its emphasis on science subjects in the school system, supporting polytechnic training, expanding the Science Teachers College, and increasing research talent through advanced degree programmes at the University of Nairobi and abroad. In addition, the primary and secondary schools will disseminate more information on the role of technology in the lives of students and develop their mechanical aptitudes so that those who emerge understand principles of maintenance.

3.5.1.2 (5.118) Polytechnic education has hitherto provided both the public and the private formal industrial sectors of the economy with technically qualified manpower; but there is a need to broaden the curricula offered to provide for the technical and economic demands of the formal and the informal sectors of the economy. To provide for more training to meet the shortages of technically qualified manpower, the Government will examine the possibility of starting a third polytechnic. The existing polytechnics will:-

- i) strengthen existing courses and introduce new courses in industrial and commercial areas;

- ii explore the possibility of establishing production workshops in conjunction with the Faculty of Engineering of the University of Nairobi. These workshops will provide work experience to non-sponsored students.
- iii provide more bursary awards to private students.

3.5.1.3 (5.251) The Ministry has started implementing a plan to employ at least twenty civil engineers per year from the University of Nairobi. In collaboration with the University of Nairobi, the Ministry has also developed one year post-graduate course in water engineering. This course is to be introduced during the first year of this plan period with an initial intake of five persons and subsequently 15 persons each year. Other training programmes to be introduced include an induction course and a course in additional theoretical training. These new training programmes will be in addition to the current technical programmes offered at the Water Training School. The intake of the technical training school is planned to increase from the present figure of 110 to 150 per year starting from July.

3.5.1.4 (6.271) The needs of the Ministry of Lands and Settlement in terms of extension personnel are provided by the Ministry of Agriculture and their needs have therefore been included in the training programme of the Ministry of Agriculture. The training needs of the Physical Planning Department will be met primarily by the University of Nairobi, with the Kenya Polytechnic providing the supporting technical staff. The Department of Survey will need various cadres of technical staff who will be trained at the Kenya Polytechnic and the University of Nairobi. Manpower requirements for the various activities and departments are shown in Tables 6.24 through 6.28.

3.5.2

Programme

Produce trained manpower with motivation, skills and knowledge necessary to enhance Kenya's technological progress.

3.5.3

Programme

Establish and operate a University Students Service Scheme whose aim will be to impart sound knowledge of the development problems in rural Kenya.

3.5.4

Programme

Introduce an external degree programme in order to cater for those who would like to further their academic studies but are not able to undergo a conventional university education.

3.5.5.

Programme

Plan postgraduate programmes according to national needs, having emphasis on training Kenyan University tutors and other specialised personnel.

3.5.6

Programme

Continue the Students' Loan Scheme for meeting lodging and other expenses, exclusive of academic costs which are financed through a Government grant.

Objective 3.6

To provide facilities for research, either directly or through the medium of connected colleges, schools or institutes.

3.6.1

Programme

Continue to provide a home for basis research combined with teaching.

3.6.2

Programme

Engage in research relevant to the nation's needs such as the following:

3.6.2.1

The nature and causes of social change and the policies appropriate for guiding it in constructive directions.

3.6.2.2

Identification and adaptation of appropriate technologies in the modern and informal sectors.

3.6.2.2.1(7.80)

The Kenya Industrial Research and Development Institute (KIRDI) was established in 1978 initially to take over the functions of the East African Industrial Research Organization. The Government has decided to strengthen the Institute by developing in it a capability to conduct applied industrial research and to commercialize the research results. The Institute will undertake research relating to new designs, development and adaption of machinery, tools and equipment. It will also carry out research in appropriate processes and technologies in the priority industries. In conjunction with the University of Nairobi, the Industrial Survey and Promotion Centre and the National Council of Science and Technology the institute will provide advice to industrial enterprises in the country. The Government has provided for K£995,000 in development expenditures to KIRDI.

3.6.2.2.2(1.55) Developing technologies for small farm and non-farm activities in the rural areas is also a matter of high priority. It is recognized that the currently available hand tools, like the hoe, are inefficient. On the other hand, imported farming machineries, like tractors, are either inaccessible or inappropriate for the majority of the small-scale farmers. Similarly, rural industries for processing locally available crops and other resources on small-scale basis will require technologies appropriate to their scale and location. Hence, research and development institutions will be given the encouragement and resources they require to address themselves effectively to the transfer, adaptation, and development of specific appropriate tools and technologies for the rural areas.

3.6.2.3 The impact of development on the environment and the means of sound ecological management of the nation's resources.

3.6.3 Programme

Introduce scholarly studies of Kiswahili to facilitate the production of adequate literature and other educational materials for the teaching of Kiswahili in schools.

3.6.4 Programme

Explore the possibility of starting an Institute of Kiswahili for research.

3.6.5 (6.57) Research and technology policies are directed at developing and introducing technical innovations, new varieties and improved farming systems, which should have substantial impact within the agricultural sector. Research expenditure will be increased and will be viewed as an essential investment in achieving the objective as stated earlier.

3.6.6 (6.58) To be effective research projects will be considered within a framework of specific objectives:

- i New technologies will be developed which will encourage more intensive land use. Technological innovations will aim at increasing yields, for example through plant breeding programmes for new higher yielding varieties of presently grown crops. Crops will be identified which respond well to increased fertilizer application.
- ii New technologies will be developed which open up semi-arid lands for agricultural and livestock production. These include generating drought-avoiding or drought-resisting plant materials for food crops, cash crops and pasture crops;

developing livestock production systems which require minimal grazing areas and low water consumption levels; and designing more efficient soil and water conservation schemes.

- iii Technology levels for Kenya's high potential areas are already quite advanced, but research should encourage the development and adoption of new varieties, techniques and farming systems that will maintain or increase this high level of productivity. Therefore agricultural research will be further improved as a service to all segments of the agricultural community.
- iv Research must be of increasing relevance to to the farmer's situation. This includes not only the physical environment which confronts him but the socio-economic setting of his farming activities. Any new technologies must be suited to the on-farm conditions. Economic analysis will be introduced both at the headquarters and the field research stations. The aim is to incorporate socio-economic constraints into design of the technology and to assess the farmer's ability to introduce and adopt new varieties and technologies. The whole process of adoption is considered an integral part of the research effort. The promotion of new technological designs, through a process of research trials, field demonstrations and extension campaigns, should lead to adoption by farmers. This objective will be closely monitored so as to indicate necessary adjustments or reappraisal of the process or technologies. Where constraints to adoption come from lack of adequate services, priority will be given to improving such services.

3.6.7

(6.82) - During the plan period new agricultural research programmes will include the following projects.

- i The Dryland Farming Research Project is to be centred at Katumani Research Station and promotes on-farm improvement in the medium and lower potential (semi-arid) areas. It will focus on improvements to be implemented within small farms and will emphasize soil moisture use, plant breeding, pest management, animal nutrition and farm system economics. It will be integrated with the on-going projects concerned with the dryland areas.
- ii The Natural Resource Conservation Project will be a major research component within the overall national programme of resource conservation. The emphasis will be on research which is expected to yield applicable results for on-going development programmes. The project

will be directed by a unit in the National Agricultural Laboratory, with major sections undertaken through the Kenya Agricultural Research Institute, and the University of Nairobi.

- iii The Agricultural Engineering Project is to be concerned with the development of appropriate technologies for small farm production; power cultivation machinery, produce processing, and soil and water engineering. This will be done in association with crop research so that tillage equipment meets the need for early planting or intercropping, etc. It will be conducted at the Kenya Agricultural Research Institute in association with the University of Nairobi. It will also be related to the Agricultural Equipment Improvement Project.
- iv The Coast Crop Research and Development Project is to part of a general programme for agricultural development in Coastal Province. Initially, emphasis will be on tree crop improvement, through plant breeding. Pest control and improved husbandry will be part of the project.
- v The Plant Protection Research Project is to expand the work of the Scientific Research Division in stored product entomology, pesticide residual problems, regulatory services, rodent control and research liaison.

3.6.8 (6.83) In addition to the new projects a number of on-going research programmes will continue during the plan period. There will be further work on maize to improve drought avoiding and drought resistance characteristics of varieties grown in drier areas; to breed heat tolerant varieties for lower altitude; to adjust to small farm practices, especially intercropping; and to test such improvements in a whole farm system context. The sorghum and millet programme will increasingly be concerned with varieties and husbandry practices for drier areas where these crops form a major part of local diets. Research will be directed to improve palatability and pest resistance of food crops. Wheat research will continue to deal with fungal diseases, especially stem-rust, and efforts will be made to develop a wheat-growing technology adapted to small farm conditions in Kenya.

3.6.9 (6.84) Triticale (a wheat-rye cross) has demonstrated drought resistance and impressive yield potential under less favourable soil and climatic conditions than are usually required for wheat. Research efforts to develop husbandry practices adapted to Kenya conditions will be undertaken. Efforts will be made by food technology and processing research to incorporate triticale into the national grain supply.

- 3.6.10 (6.86) Generally agricultural research in Kenya will be agreed to the requirements of a land-short economy.
- 3.6.11 (6.89) Qualified scientific manpower is the major constraint on research capacity. To alleviate the problem, funds will be made available through Research Division, Ministry of Agriculture to departments in the University of Nairobi and Egerton College, so that their scientists can be utilized for priority research with Government programmes. The implementation capacity of the Research Division will also be extended by: (i) establishing a scientific research scheme of service that will provide more attractive terms and promotional prospects based on research achievements to agricultural research scientists; (ii) combining the research services of the Ministry of Agriculture with the agricultural research services of the former East African Community to form a new comprehensive agricultural research organization to meet the needs of Kenya's agricultural development; (iii) providing a more effective co-ordination between the different research organizations through the Agricultural Research Advisory Council of the National Council of Science and Technology.
- 3.6.12 (6.212) Research should not be regarded merely as a supportive service. It is a means for injecting new and productive technologies into the industry and of projecting the required shifts in forestry development to stay in line with Government policy. A major recent development in the institutional side of forestry research has been the re-organization of the former East African Agricultural and Forestry Research Organization at Muguga which undertook several important components of forestry research having regional application. The best way of incorporating this institution into the existing scientific research structure is still under discussion.
- 3.6.13 (6.213) Broadly the goals of forestry research activities in Kenya are:
- i to support the intensive afforestation programmes based on highland species;
 - ii to develop and improve the afforestation techniques in the arid and semi-arid regions;
 - iii to initiate programmes to improve indigenous commercial hardwoods;
 - iv to intensify the afforestation programmes in Coastal region;
 - v to breed commercial forest trees for the improvement of wood quality and site adaptation;
 - vi to collect and conserve forest tree periplasm;

- vii to protect forest plantations against diseases, pests, fire and other hazards;
- viii to study the interaction between forestry and agricultural practices to maximize total production from the land;
- ix to study the nutrient cycling of forest soils under different agricultural cropping systems;
- x to study more efficient methods of converting firewood into energy.

3.6.14 (6.214) Such research activities would be undertaken by the following broadly defined areas of work: forest protection, which would include the study of pests and diseases as well as research on damage to trees by fire and game; tree protection and afforestation including both hardwood and softwood species, together with drought resistant and medical tree species; gene conservation and work on forest water catchments, agro-forestry and forest ecology; utilization and marketing, involving timber technology; production and economics, marketing strategies and timber grading standards.

3.6.15 (6.215) One research project which is underway and which will be expanded during the plan period is directed towards afforestation of marginal lands, a subject to which little attention has been given in the past. Essentially this research project is concerned with the establishment and maintenance of various tree species in the arid and semi-arid regions of the country. Research stations have been established at Hola-Bura in the Coast Province, Kibwezi in Eastern Province, Ramogi and Wire in Nyanza Province and Lohima Hills (Lodwar) in Rift Valley Province and more stations will be started. This programme will require a total of K£376,000 during the plan period.

3.6.16 (6.216) In all its research activities, the Forest Department will work closely with the Scientific Research Division of the Ministry of Agriculture and the National Council of Science and Technology.

Objective 3.7

To assist in the increase, preservation and transmission of knowledge.

3.7.1 (2.128) The productivity of the nation and the income-earning opportunities associated with it depend crucially on the application of modern scientific knowledge to the identification and generation of improved technologies, and the use of the technologies in production processes. In this Plan, therefore, high priority is attached to scientific development and to the use of technology for the social and economic development of the nation. Because the resources available in Kenya for scientific research and technological development are limited, our planning efforts in this regard

must be first, to design our research programmes on the basis of clearly identified national priorities, and second, to co-ordinate these programmes so that no effort is wasted in unnecessary duplication of research.

- 3.7.2 (2.129) Those national priorities must be assigned to specific technological needs in Kenya whether these needs are met by the transfer and adaptation of research results and modern technologies found elsewhere in the world or by original research and new technologies designed in Kenya. With regard to technological transfer, we will develop our scientific capacities to the point: where the results of such research can be readily assimilated in Kenya, and more importantly, modified and adapted to our needs. In this way, transfer of technology will be used as a stimulus leading to further development of technology. To facilitate this, basic supporting facilities, including standardization, patent control, documentation, and information, will be developed.
- 3.7.3 (2.130) Whether the technologies are transferred from abroad or developed locally, the important point is that the technologies be as productive as modern science can devise for the settings in which they will be employed. In telecommunications, it is the most sophisticated international technologies available; in an oil refinery, it is the most efficient technology that can be incorporated in the scale of plant suitable for Kenya; in a sugar factory, it is the most productive equipment available which will make full use of Kenya's ample labour supply; and on large farms, tractor ploughing may be appropriate.
- 3.7.4 (2.131) The greatest challenge and the greatest need, however, is to apply modern science to the development of technologies that can be used productively by small farmers and self-employed workers in the rural and urban informal sectors. Such technologies, if they are effective and appropriate to the small farm and informal sector settings must: (i) be more productive than the technologies now in use, (ii) be produced and sold at a cost that the intended user can afford, and (iii) cope effectively with problems confronted by the user in the setting in which he and his family work. That is appropriate technology, and its creation is a genuine challenge to the most modern and sophisticated scientific knowledge. It is the first priority for Kenya's scientific and technological research programmes.
- 3.7.5 (2.132) Effective research must proceed from the identification of technological needs. As these vary considerably from one part of the country to another depending upon ecological conditions and methods for organizing production, some research must be directed toward the identification of needs

of specific settings. Some of these needs as they relate to the poorest small farmers have been identified and research work is being directed toward their resolution. These include: (i) the identification of new crops and crop varieties appropriate for different soils and ecological settings, (ii) the control of insects and plant diseases, (iii) methods of farm management that will increase the amount and variety of production, (iv) low cost mechanical technologies that will increase productivity and make farm work less onerous, (v) simple transport technologies that will facilitate the movement of supplies and output from farms to roads, and (vi) solar and biogas technologies to bring some power to isolated communities at lower cost and without the transmission losses associated with the transport of power over long lines.

- 3.7.6 (2.137) The responsibility for expanding on these policies and co-ordinating their implementation lies with the recently created National Council for Science and Technology. Under its aegis, the Government will establish several government research institutes whose research programmes will require approval by the Council. In addition, research programmes at the University of Nairobi and at private centres, such as the Medical Research Centre, will be referred to the Council for its consideration and all research work in Government ministries will be co-ordinated by the Council.

Objective 3.8

To determine who may teach and what may be taught and how it may be taught in the University.

Objective 3.9

To conduct examinations for, and to grant degrees, diplomas, certificates and other awards of the University.

- 4.1 To achieve its objectives, the University of Nairobi has grown into an institution with about 1000 academic members of staff, 700 technical and secretarial members of staff and about 2400 junior members of staff of Grade I - IV. In order for them to carry out their functions satisfactorily, they need to continue to be provided with necessary University facilities for teaching and research.
- 4.2 An equally important aspect of staff life is their welfare in terms of their salaries, housing, health, and other basic necessities. It is because of this that Senate has recently proposed the establishment of a Staff Welfare Committee. This proposal is being processed.
- 4.3 In the meantime, staff welfare matters have been dealt with variously by the former Academic Staff Association and now by the University Academic Staff Union and the Senior Common Room. I have arranged to meet the Executive Committee of the University Academic Staff Union once a month to discuss issues raised with them by those who are members of the Union.
- 4.4 I must, however, remind all staff to be very clear that the University Academic Staff Union is registered as a trade union under the Trade Union Act. The Council of the University has so far declined to recognise the Union.
- 4.5 In contrast, the Union's predecessor, the Academic Staff Association, was more of a professional association of the University scholars that was fully represented on the University Council where issues affecting the welfare of staff were very effectively presented.
- 4.6 It is therefore up to the academic community to decide whether or not to promote the idea of a trade union without representation on the Council or revive the professionally oriented Academic Staff Association with representation on the Council. There is no reason why the two cannot run together.
- 4.7 In the meantime, I would like to remind you all that the physical facilities provided in the form of the Senior Common Room are a property of the Council and should continue to be used to promote the more social aspects of life among the academic community. I am afraid to note that of late the Senior Common Room has tended to be identified with heavy alcoholic drinking. I hope the Executive Committee will continue to diversify the function of this important facility.

- 4.8 It is for this reason that I was very glad to attend the successfully organised annual dinner and social evening on 7th July, 1979. It was evident on that evening that the facility had become too small for the growing academic community. I therefore wish to put it to you and the University Council to start planning co-operatively for the establishment of an adequate centre that would be large enough and cater for a wide variety of activities to become the focus of social life of the staff and families of the University.
- 4.9 With regard to the contractual aspects of staff welfare, the University is being asked to set up a committee to do a review of terms of service similar to the one being done by the Government.
- 4.10 The junior staff of Grades 1 - 4 are unionisable under the Hotel and Domestic Workers Union. I am also meeting once a month with the officials of the Union, who are, of course, from outside the University, together with the University shopstewards to discuss matters related to the welfare of the 2400 staff of this category.

TECHNOLOGY AND METHODOLOGY

5.

- 5.1 The University is one of the largest depositories of a wide variety of equipment and methods related to the performance of tasks of higher education and training. The equipment includes everything from test-tubes to the most advanced ICL computer. A lot of the equipment is relatively expensive but cannot always be said to be used in the most efficient manner.
- 5.2 As part of this planning exercise, I am therefore asking all of you to assist in the preparation of the most up-to-date inventory of all the equipment in the University. The work should be co-ordinated by the Chairmen and Chief Technicians in the various departments. I hope that when put together, the inventory will help to show where various pieces of expensive equipment are to be found and their availability for use by other staff to avoid unnecessary duplication in purchasing. The information on each piece of equipment should show when it was bought, the original price and what it is used for.
- 5.3 A variety of methods are used for teaching and examining. These methods vary widely in their effectiveness as ways of communicating. While it is vital for a university to experiment with methods, it is vitally important to be able to assess their effectiveness in communication. We must also remember that the great majority of university scholars are trained primarily on how to develop knowledge rather than on how to communicate it. The teaching methods vary from the traditional didactic lecture, with or without notes, visual aids and other paraphernalia, to group seminar discussions, practicals, field trips and many others.
- 5.4 Since a university should be the place with the ability to develop the most effective methods of developing knowledge as well as communicating it to people for use, I would like to suggest to you that during the five-year period we undertake a number of seminars and workshops aimed at evaluating our methods of teaching and examining.

- 6.1 The annual budgetting of the University has traditionally been based on plans agreed upon between the Government and the University. In the years 1970-1973, the planning was done on a three-year basis. In 1971 a University Grants Committee produced a three-year plan for the period 1972-1975 thus overlapping with the 1970-73 plan. Since then there has not been any long-term planning.
- 6.2 The University Council has recently agreed that the planning of the University will be most effective if it coincides with the national development planning. That is why we are now planning for the period 1979-1983 to coincide with the current development plan of the country.
- 6.3 Within the 1979/1983 Development Plan of the country, the University has been allocated the following funds to cater for the indicated enrolments.

UNIVERSITY OF NAIROBI				
YEAR	ENROLMENT	RECURRENT FUNDS (GOVT) K£	UNIVERSITY REVENUE K£	TOTAL BUDGET K£
1978/1979	4,800	6,445,000	800,000	8,085,000
1979/1980	5,025	7,285,000		
1980/1981	5,300	7,705,000		
1981/1982	5,625	8,180,000		
1982/1983	5,900	8,560,000		
TOTAL		38,175,000		

KENYATTA UNIVERSITY COLLEGE				
YEAR	ENROLMENT	RECURRENT FUNDS (GOVT) K£	COLLEGE REVENUE K£	TOTAL BUDGET K£
1978/1979	1,450	1,890,000		
1979/1980	1,600	2,305,000		
1980/1981	1,870	2,725,000		
1981/1982	2,200	3,200,000		
1982/1983	2,550	3,725,000		
TOTAL		13,845,000		

- 6.4 The estimates for the year 1979/1980 have had to be reduced by 14.5% in order to be within the allocated budget. I would like to appeal to all departments to make sure that this reduction is actually done because it has to be done. But it is up to the departments to do so in a manner that will not affect their basic functions adversely. There is no money at all beyond the total budget of K£8,085,000. A total of K£38,175,000 is available for the period 1978/1979 to 1982/1983 and we must henceforth plan within that budget.
- 6.5 I am confident that after the 1979/1980 constraints, we will be able to carry on without feeling the financial restrictions. But in order to get into that position, we must reduce many of the costs as much as possible. While we cannot control the costs of cars and other items, I am satisfied that we can reduce costs in the medical scheme, making our own uniforms and laboratory coats, extending our own maintenance capability to include vehicles and some of the equipment, producing more food on our farm at Kabete, establishing a University of Nairobi press, and building more University-owned houses. We must also look for ways and means of raising our own revenue.
- 6.6 I intend to submit these proposals to the Council for authorisation but I would in the meantime appreciate receiving any ideas you might have.

7.1 Research and development

One of the features that distinguishes university education from the kind of education which is to be found in all other institutions of post-secondary education is research. By research it is meant the art and practice of systematic investigation and experimentation for the purpose of developing frontiers of knowledge. This is necessary for solving pressing problems of society.

In this respect research is thus closely related to the day to day problems of social development. Research is necessary in facilitating developments to occur in business, industry, science and technology, agriculture, medicine and so on. For instance, research helps in the development of new and improved products and in finding more effective ways of increasing productivity.

When research is undertaken in order to achieve a practical or profitable goal, such as the production of a better fertiliser or high yield crops, it is described as applied research. Its value is relatively evident and of immediate application.

When research is confined to basic principles it is known as basic or pure research. It may not be necessarily related to any immediate application except the discovery of some fundamental truth.

Quite a lot of important research is of a basic nature and may not appear to have any direct application to the immediate problems of society. It does, however, open up new frontiers of knowledge and in this way does eventually lead to the creation of a more rational and accurate capability of society to solve its problems.

In general, research is a necessary tool for solving problems systematically through study and experiment rather than on the basis of chance or inspiration. All academic staff of the University therefore are expected to carry out research in their respective fields.

7.2 Postgraduate specialist training

This includes educational activities which produce various types and levels of specialised personnel. As far as the University is concerned, it is closely linked with research even though a lot of postgraduate training may be taught without research.

Postgraduate training needs to be guided by a national definition of manpower requirements. A baseline for this can be provided through manpower surveys on the number, types and patterns of deployment of the various specialists in relation to development needs.

Manpower problems also include the patterns and relationships of skills between graduates, technicians and artisans. In Kenya due to undue emphasis on education for white-collar jobs, the skill pattern is not a pyramid but a tumbler due to relative and absolute shortages of technicians and artisans.

During the period when the University College Nairobi was a constituent College of the then University of East Africa before 1970, the main concern was the production of first degree graduates to meet basic manpower needs for the immediate post independence period. Postgraduate education was not a priority from an institutional point of view.

Postgraduate education was planned and provided for from 1970 when the University of Nairobi was established as a national institution of higher learning. One of the main reasons for developing postgraduate training then was the need to produce potential university teachers who had always largely come from other countries.

While in training, postgraduates provide a stimulus to their teachers due to the demand for advanced supervision of their research and training. They also make a major contribution to the teaching of undergraduates. Finally, the training they get locally, provided it is of a high standard, has the enormous advantage over overseas training in its relevance and immediate applicability to the local circumstances.

A scholarship programme was then established to make it increasingly unnecessary to send people overseas to do postgraduate studies. The money for the scholarship fund has since come from the Government and overseas donors.

Postgraduate training is a slow and expensive process. Because of this it is necessary that it should be guided by clearly defined national needs of specialists for the country's development. These guidelines do not exist and they can only be worked out in a nationally coordinated, interdisciplinary forum which looks at all aspects of training for development.

Without such nationally defined patterns of manpower needs, the University cannot rationally plan its postgraduate programmes for the country. Yet it is true that the very specialisations for which the University can train local graduates are suffering from shortages of manpower. The other side of this problem is the unemployment of school leavers who could be trained as supportive technicians and artisans to make graduates much more operationally effective.

In order to train specialists in adequate quality and quantity for development, it is necessary to identify development problems that need to be solved. This can only be done through research.

It is therefore gratifying that in 1977 the Government established, through an Act of Parliament, the National Council for Science and Technology. The Council has established a national research fund to enable it to direct public funds to priority research areas and specialised training aimed at facilitating social and economic development. In this respect, it is expected that the Council, the University and other research institutions will work in close collaboration.

In his inauguration of the Council the then Minister for Finance and Planning instructed the Council to work on the basis that research was an essential tool of development. This was highlighted because it is generally believed that research is a luxury which developing countries cannot afford.

On the contrary, however, it is the developing countries that in fact needed more research and to utilise the results to not only identify development problems but also find better ways of solving them. The Kenya Government has, therefore, indicated a desire to allocate about 1% of GDP to research and development activities..

8.

INFORMATION

8.1 As indicated in my preliminary remarks, I would like every individual member of academic staff to identify himself or herself with a specific area of development of specialised knowledge that can be itemised and stored in a computerised system of data management. It is that specialised area of knowledge development that would then be identified in the University, country and the world at large as a pillar on which the frontiers of knowledge can continue to move forward.

8.2 I would therefore like to ask every member of academic staff to submit, through the Department Chairman and Faculty Deans/Institute or School Directors, your name, your department and your specialised area of knowledge development. For example, I have three areas of specialisation, namely, cells of the cerebral cortex, elastic fibres and public education. I will therefore submit MUNGAI, J.M.; HUMAN ANATOMY: CEREBRAL NEURONS, ELASTIC FIBRES AND PUBLIC EDUCATION. When we have these returns from all the academic staff, we will then start the long but development oriented exercise of correlations and groupings with a view to promoting collaborative effort in research and development. I would also like to ask every member of staff to submit, for your personal file, an up-to-date curriculum vitae which shows what progress has been made over the years in the areas of specialisation.

9.

COMMUNICATIONS

- 9.1 One of the main objectives of the University is to assist not only in the increase and preservation of knowledge, but also in its transmission. Knowledge which is developed and then stored without being communicated to those who need it is not of much use. Indeed it is worth remembering that those of us who have access to knowledge do not communicate it in adequate quantities to the public primarily because we tend to regard it as our own possession and our means of earning a living. When we communicate the knowledge we gain in our research, we do so in languages and technicalities which are understood only by those who already have similar knowledge. Other people have to have the knowledge processed and digested to a form which can be absorbed and used. The effectiveness with which we communicate knowledge is therefore also of great importance.
- 9.3 But whether or not we are able individually to communicate our specialised knowledge to the public, the University itself must make communication of knowledge one of its major features. This should happen both within the University and between the University and the outside world.
- 9.3 I have instituted the process by starting a general information sheet from the Vice-Chancellor called the VARSITY FOCUS. I intend to develop it into a general information bulletin of the University. I have taken the step of getting the letterheads produced in two colours, namely green and red. The green stands for the raw and unseasoned Vice-Chancellor while the red stands for the enormous quantity of heat that is generated in many of the departments through all kinds of personal conflicts. The Vice-Chancellor's office remains a most effective central cooling unit and I invite you to come and cool yourself regularly.
- 9.4 Going back to the VARSITY FOCUS, this address will be circulated under the coloured letterheads on time for the meetings with the Boards of Faculties, Institutes and School.
- 9.5 I have no doubt that VARSITY FOCUS could become a general information bulletin that is of interest to the public. But of greater educational significance to the public is the

University potential for book production. I have no doubt whatsoever that the establishment of the University of Nairobi Press is long overdue. The name has already been booked at the Attorney-General's office. The General Purposes Committee of Council is being asked to authorise the full registration of the name next month. Thereafter we will begin the necessary consultations on the most efficient way of developing its publishing work. It is my sincere hope that the development plan we are working on will be produced by the Nairobi University Press.

- 9.6 May I therefore urge all of us to orientate our efforts towards the production of reading materials that are cheaper and more relevant than the presently imported books. I am glad to acknowledge recently produced books such as "Diseases of Cattle in the Tropics" by Professors Mugeru, Wandera and Bwangamoi; "East African Agriculture" by Dr. Ngugi, Mr. Karani and Mr. Nguyo; "Jesus the Stranger" and "Jesus the Way" by Professor Donders; and "Income Taxation in Kenya" by Ngotho Kariuki.

- 10.5 "Power to read" is therefore one of the most pertinent outcomes of the work of undergraduate days. Students are thus expected to develop attitudes that will enable them to use their skills of learning to avoid getting rusty in future. The University tries to enable students to develop that power. University education is a unique opportunity of learning how to integrate knowledge and experience with future life in careers and family into a harmonious and continuous process.
- 10.6 It is in fact necessary for students to keep constantly reminding themselves of the purpose for coming to the University. In particular, it is necessary to start thinking of what they will be doing in future so that what they do in the University can be made to coincide as closely and as smoothly as possible with their future careers and family life.
- 10.7 Whether or not students come out of the University with any qualification, society is going to be their best judge. It must however be remembered that society will judge them not so much by the fact of possessing a university qualification, but by what they do with it and also by how they use it to solve problems and to meet challenges of life in future. It is because of this that the wise student therefore endeavours to develop those qualities which society is likely to be looking for in future.
- 10.8 One of these qualities is integrity, with special concern for honesty and the general idea of wholeness and uprightness. Knowledge alone without any integrity is not likely to be of real lasting value to the scholar or to the community.
- 10.9 Students are, of course, adults and the University recognises this. At the time of admission to the University the students have already had their basic patterns of behaviour well set but hopefully not so rigidly that they cannot learn new things and adjust to new situations and colleagues. Other changes are expected to occur to them in the university as a result of their new association with other students and staff as well as the beautiful and stimulating environment of the city of Nairobi.

- 10.10 The second attribute the society will expect of students is intellectual ability. This attribute has already been recognised in the students by the admissions process which enabled them to come to the University.
- 10.11 The third quality is the capacity for hard and sustained work. In whatever the students are likely to be doing in future, they will be expected to demonstrate both physical and intellectual stamina when faced with problems to solve. This requires a capacity not only for sustained work but also for initiating work as well. Lack of initiative results in static attitudes and stagnation. If such an attitude sets in while one is a student at the University, only the acute pressure of examinations is likely to get him or her out of such a situation. Lack of initiative and sufficiently demanding intellectual stamina is one of the root problems of poor performance in many jobs when such a person finishes and takes up a job.
- 10.12 It is this particular attribute that University education can probably do most to assist in the students' development. The expectation is therefore that every effort will be made to ensure that the education offered at the University is capable of bringing such an attribute to full maturity. The worst thing that can happen is for the education process to turn into a kind of factory whereby a student enters at one end as a well brought up person who is full of life and comes out at the other end as a socio-economic commodity.
- 10.13 It is therefore the constant objective of the University to make sure that university education will enable the student to acquire the motivation and ability to go on learning and improving his knowledge when he leaves the university and throughout his life. It is certainly the hope of the university teachers to avoid giving the impression that the only work the student is likely to do is what he is forced into by rules and examinations.
- 10.14 The fourth quality is the development of an ability for sound judgement through common sense. This is achieved by integrating academic knowledge with experience. Common sense is the quality which facilitates the formation of sound judgement from the materials of experience which the student

will have gathered individually as well as collectively in the family, school and community.

- 10.15 The fifth quality is the ability to ascertain the truth. Knowledge which is not weighed against reality may become harmful. Knowledge should enable the student to assess the various socio-economic factors which constitute the environment in order to make judgements that will help the scholarly attributes to live in harmony with what is in the environment. Life consists of constant challenges which demand careful and consistent assessment. It is only after assessing such challenges that one is able to apply the most appropriate action to meet them.
- 10.16 Lastly, and for the immediate purpose, the student requires to acquire knowledge which is the minimum requirement for coming to the University. However, although it is an important objective to acquire knowledge, the student may find that in a number of cases too much emphasis may be placed on this aspect of educational development. The more the student finds this to be so, the more he should make an effort to strengthen the other attributes that have been mentioned before (integrity; intellectual ability; capacity for hard and sustained work; common sense; and ability to ascertain the truth).
- 10.17 At the time of admission the student already has a lot of knowledge otherwise he would not have managed to enter the University. It is greatly hoped therefore that, as a result of coming to the University, the student will acquire the motivation and ability to go on acquiring much more knowledge after leaving the University. In other words, it is hoped that the teacher will teach the student how to continue being a scholar with regard to the task of solving the problems that he will meet in his career in particular and in life in general.
- 10.18 One of the worst things that can happen to anybody is to develop an attitude that passing examinations is the reason for learning. When that kind of attitude develops then it means that as soon as there are no more examinations the person will inevitably drift slowly into a situation in which he cannot even read a newspaper without making an unnecessarily big effort. It is always sad to see university

educated graduates who are unable to go on learning when the pressure of examinations has been removed. The demands and increasing complexities of the jobs they will do, whether in public or private service, can only be met through continuous learning throughout one's life."

11.

THE ESTABLISHMENT

- 11.1 The non-student half of the University community consists of about 1000 academic members of staff, 700 technical and secretarial staff and about 2400 junior members of staff of Grade I-IV. They are more or less the establishment.
- 11.2 There are two features of this establishment that I wish to mention. The first one is the concept and practice of professionalism among the senior staff. The second one is the patterns and relationships of skills among the staff in relation to their functions.
- 11.3 With regard to professionalism, the concern is not only with the depth of knowledge and competence in an area of specialisation but also with the manner of use of that capability. Here I only wish to leave you with a few questions to think about. How can a teacher exercise impartiality to a student of the opposite sex with whom he is having sexual relations? How can a teacher maintain his competence and socially acceptable behaviour if he is drinking heavily during working hours? What is the status of a head of a section or department who habitually borrows departmental money until he cannot repay the amount and in the hope that he will not be discovered? I leave these questions to your consciences to think them over for the time being.
- 11.4 With regard to the question of the skill pattern, the University is expected to tackle not only the problem of manpower shortages but also the question of the patterns and relationships of the various skills. In a review carried out in 1975 by the National Council for Science and Technology, it became clear that the patterns and relationships of skills in the country needed corrections. Instead of having a pyramidal pattern and relationships of the order of one graduate to three technicians and 6 - 10 auxiliaries/craftsmen, the pattern was found to be more like a tumbler. This needs to be corrected over the next 10-20 years through carefully co-ordinated training programmes.

11.5 The University has the even more peculiar skill pattern of an hour-glass which is constricted in the middle. I would like to ask all departments to study this problem with a view to facilitating the design of a more effective training programme for technicians and craftsmen. Only in this way can we hope to maximise our operational effectiveness.

- 12.1 When all is said and done, the University will be judged by the extent to which it will have helped society to achieve its aspirations. It is therefore important that as an institution we keep ourselves in touch with the realities of life around us.
- 12.2 In this regard, I would first of all like to appeal to all of us to show more interest in the University Convocation which consists of the alumni or former graduates of the University plus the staff. The convocation can discuss and give opinion about the University. It can also assist in giving material help such as scholarships to the University. The question is whether it should be organised around the academic or social life of the University or a combination of both.
- 12.3 It has also been suggested that we programme a regular series of public lectures where persons from within and without the University will talk on topics of public interest. In this regard, I wish to remind all Professors who have not given their inaugural lectures that these must be given during the coming academic year.
- 12.4 We also look forward to the implementation of the University Students Service Scheme to impart sound knowledge of the development problems of rural Kenya. This will undoubtedly help to bring much better understanding between the public and the University.
- 12.5 In the meantime, there are already a number of activities which have been going on that facilitate the University's relationships with the public. In this regard, I would just mention only two of them this time although we will be elaborating on all of them as part of this planning exercise. The two are the University of Nairobi Free Travelling Theatre and the Kenya University Sports Association.
- 12.6 The University of Nairobi Free Travelling Theatre has been performing freely in various parts of the country for the past six years. They are now rehearsing for a programme that will start at Kilgoris and take them through Homa Bay, Oyugis, Kisumu, Maseno, Siaya, Mumias,

Kakamega, Webuye, Eldoret, Nakuru, Nyeri, Kitui, Mombasa and Machakos between 4 and 21 September 1979. They will then return to Nairobi where they will put up performances between then and the beginning of term. They will be doing three performances each day in each of the stations, mostly at secondary schools.

12.7 The Kenya University Sports Association is a recently formed body that is responsible for enabling the University to enter into international sports. Hitherto, the standard of sports in the University as a whole has been well below international standards. Even the inter-university games have been undertaken mainly as competitions among the institutions without any major breakthroughs in achievement of international standards. All this changed however, when the University of Nairobi sent a few sportsmen to the World University Games in Sophia, Bulgaria, in 1977. The University followed this by hosting the second FASU Games here at the end of 1978. We have now sent another contingent of sportsmen to the World University Games being held in Mexico between 2 - 13 September, 1979. The contingent left yesterday, Thursday 23rd August, 1979. It consists of well trained sportsmen in 5000 metres, 1500 metres, 800 metres, 400 metres, 400 metres hurdles, steeplechase and tennis.

12.8 A few companies have recently donated some money and drugs towards this trip. I have indicated that, in order to ensure a stable supply of athletes at the University, we are contacting schools to identify students who could be trained for international sports. As a gesture of this, the contingent that has gone to Mexico has taken with them the 12-year old Elizabeth Onyambu who recently surprised everybody by not only beating the 1500 metres national champion but also by winning at the recent inter-territorial competitions in Mombasa. She is still in Std. V but we hope she will come to the University when she will be at the peak of her performance at the age of 19.

12.9 Lastly, I wish to remind all of us that in 1976 some of the staff of the University took the initiative to form the Co-operative Savings and Credit Society known as CHUNA, an abbreviation for Chuo Kikuu cha Nairobi but also the Swahili word for reaping some fruit. It is registered and very strictly

run under the Co-operatives Act. By July 1979 it had registered 1746 members in the ratio of 1:2:7 academic, technical/secretarial and junior staff respectively. This means that the society has not had as much support from the academic staff as it should. I am therefore appealing to the academic staff to join CHUNA Co-operative Savings and Credit Society of the University. As you know, every Government Ministry has a Co-operative Society for all of its staff. CHUNA is established along similar lines and in only three years since its inception it is one of the most successful and potentially one of the largest. I have arranged to be meeting with the Management Committee once a month. One of the projects they have proposed and whose feasibility I have given authorisation to be studied is the establishment of a nursery school in the University for children of members of staff.

12.10 After one has been a member of CHUNA for eight months one can start raising loans of 3-5 times the member's share capital, each share being 20/-. All that is required is that you are a member of the University. Members have raised loans to buy property, pay income tax, pay school fees, buy vehicles and so on.

12.11 All you have to do is to fill up application forms authorising the finance officer to deduct the monthly sum that corresponds to the number of shares you wish to buy. I commend the CHUNA Co-operative Savings and Credit Society as one of the most important University welfare organisations that will help us to live and grow as a community. I hereby submit my application forms to the Chairman, Dr. Omuse.

12.12 I thank you all and look forward to meeting you at the Faculty Boards.
